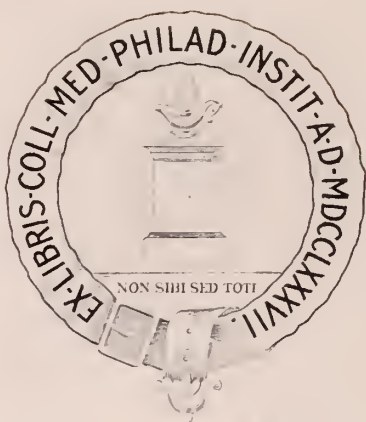


181766



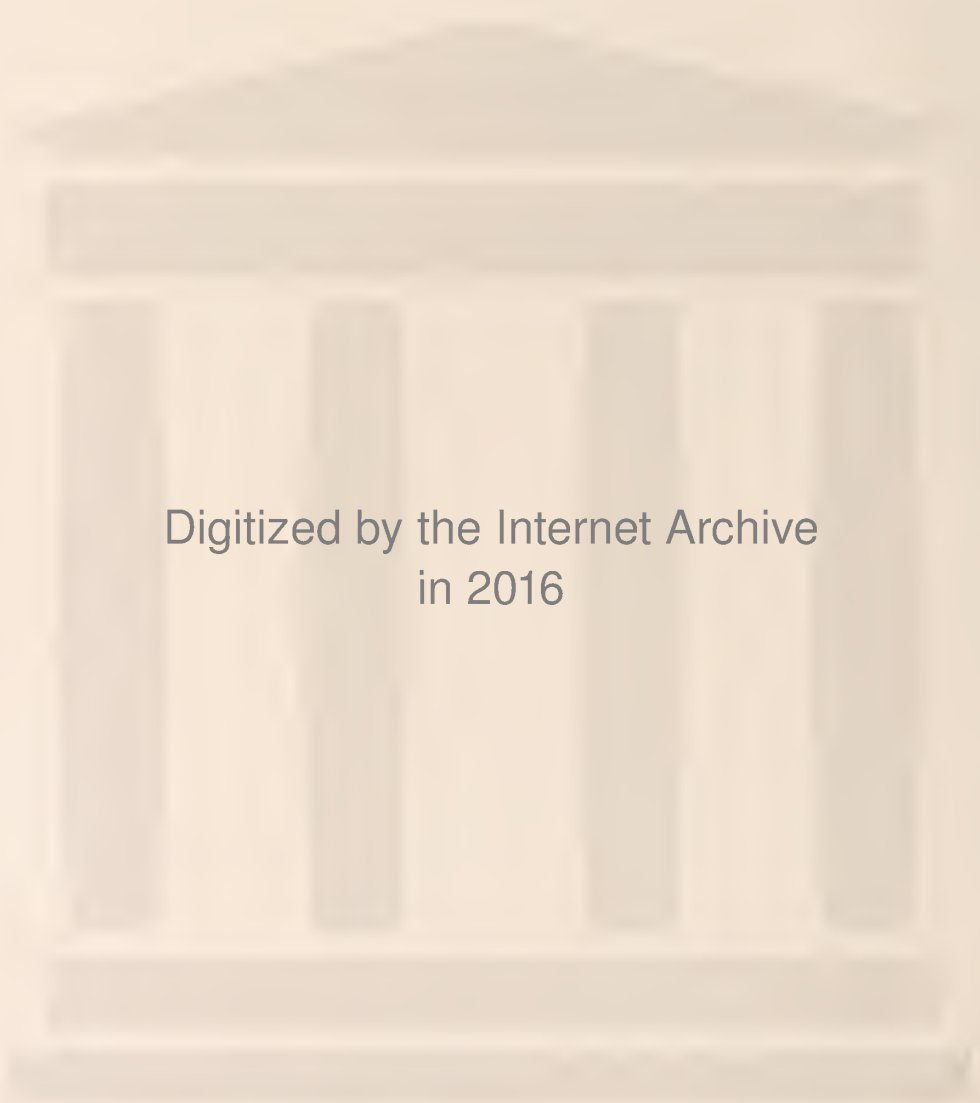
Class _____ *No* _____

Presented by

Gift.

Bdg. 2 .70

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA



Digitized by the Internet Archive
in 2016

<https://archive.org/details/journalofkentuck5119kent>

INDEX SUPPLEMENT

Journal of the
KENTUCKY STATE MEDICAL ASSOCIATION

Edited by

Bruce Underwood, M.D.

Under Supervision of the Council

Volume Fifty-One

JANUARY THROUGH DECEMBER

1953

Index—1953

Scientific and Special Articles Listed by Title

A

- Abuses of Voluntary Health Insurance, 367
- Advances in the Surgical Management of Carcinoma of the Colon, 131

B

- Backing Into Socialized Medicine, 545
- Basis for Sex Education of Young Adults, 480
- Breast Cancer: A Study of Ten Year Results, 189
- Bronchial Obstruction: Its Significance in Pulmonary Disease, 494
- Bulwarks, 159

C

- Cardiac Arrest, with Report of Two Cases, 381
- Certain Fundamentals of Peripheral Vascular Disease, 398
- Changing Pattern in Obstetric Practice, 534
- Chest Injuries, 491
- Civil Defense Health Services and Special Weapons Defense, 93
- Complications of Biliary Tract Surgery, 21
- Complications of Complete Hysterectomy, 292
- Considerations of the Surgical Treatment of Carcinoma of the Cervix Uteri, 5
- County Societies and "The Rural Health Council," 455
- Current Trends in Anesthesia and Their Relationship to the General Practitioner, 429

D

- Dedication of the Portrait of Phillip Earl Blackerby, M.D., D.Sc., 544
- Dépression as an Early Symptom of Severe Physical Illness, 363
- Diagnosis of Lung Lesions, 104
- Diarrhea in Infants and Children, 425
- Diet and Arteriosclerosis, with Special Reference to Coronary Arteriosclerosis, 359
- Doctor's Day in Court, 16

E

- Early Function in the Treatment of Fractures of the Upper Extremity, 297
- Encouraging and Discouraging Research with Therapeutic Radioisotopes, 243
- Endocrinology, Phases of Gynecology, 181
- Evolution of Transurethral Prostatic Surgery, 519

F

- Facilitating the Embryo Physician's Transition, 305
- Fees—Doctor-Patient Relationship, 258

G

- General Practitioner Sees the Hypertensive Patient, 45
- Geriatric Surgery, 1

H

- Hazards of Antibiotic Therapy, 386
- High Intestinal Obstruction in Newborn and Very Young Infants, 277
- Histoplasmosis, 12
- Hydatidiform Mole and Chorionepithelioma, 247

I

- Infant Mortality, 108
- Intestinal Obstruction, 448

K

- Kentucky—the Progenitor of Pioneer Doctors, 67

L

- Legislative Program and Activities of the American Medical Association, 524

M

- Management of Cancer of the Cervix, 146
- Management of Carcinoma of the Cervix, 247
- Management of Casualties in Korea, 193
- Management of Essential Hypertension, 434
- Medical Treatment of Hypertension, 529
- Melody Lingers On, 1
- Mitral Stenosis—Its Surgical Correction, 141
- Multiple Myeloma, 351

O

- Obligations of the Individual Physician in the State Medical Profession in Civil Defense, 254
- Observations and Experiences with Isonicotinic Acid Hydrazide (INH), 229
- Obstetrical Anesthesia in General Practice, 139
- Otalgia, 151
- Our Geriatric Problem, 56

P

- Pancreatitis, 187
- Physician's Responsibilities to His Community, 302
- Practical Aspects in the Treatment of Purulent Meningitis in Children, 52
- Problem Confronting the Rural Kentucky Medical Scholarship Fund, 206
- PR Profits, 483
- Public Health Policies, 137

R

- Radioactive Iodine in the Diagnosis and Treatment of Thyroid Disease, 390
- Radioactive Iodine I-131 and the General Practitioner, 541
- Rationale of Good Control in Diabetes Mellitus, 238
- Rationale of Prostatectomy, 204
- Recent Concepts of Prophylaxis in Anterior Poliomyelitis, 491

Report: Medical Education in Kentucky, 406
 Review of the Modern Treatment of Burns,
 285
 Role of Civil Defense in the National Blood
 Program, 403
 Rural General Practice, 1952, 49

S

Seasonal Incidence of Acute Myocardial In-
 farction in the Kentuckiana Area, 14
 Shoulder-Hand Syndrome, 441
 Small Bowel Tumors with Presentation of
 Twelve Cases, 85
 Some Aspects of Heart Disease from the View-
 point of the Patient, 473
 Summary of Services Provided by the Field
 Secretary, 208
 Surgery of the Hand, 98

T

Toward Better Medical Care in Kentucky, 496
 Traumatic Diaphragmatic Hernia with Acute
 Intestinal Obstruction, 62
 Treatment of Burns in Case of Atomic War-
 fare, 155

U

Urethra of Woman, 437
 Urinary Stress Incontinence in Women, 59
 Use of Tantalum Mesh in Hernia Repair, 477

W

When a Psychiatric Case Walks into Your Of-
 fice, 9
 Which Direction?, 25
 Wound Healing and the Antibiotics, 394

INDEX

Scientific and Special Articles Listed by Contributors

A

Armstrong, J. W., 12

B

Bailey, Clark, 25
 Barr, R. Haynes, 111
 Barrow, D. W., 477
 Bell, Joseph C., 406
 Bickel, J. Edmund, 489
 Bond, George F., 49
 Bricker, Eugene M., 131
 Brown, Leo, 483
 Brucer, Marshall, 243
 Bryant, J. Ray, 141
 Bush, J. M., 45

C

Colwell, Arthur R., 238
 Corscaden, James S., 146
 Crawford, Kenneth P., 425

Crimm, Paul D., 104
 Crudden, C. H., 363
 Curtis, L. R., 16

D

Davis, W. Burford, 141
 Dixon, Raymond F., 206
 Dozier, George S., 441

F

Floyd, Charles N., 187
 Floyd, John B., Jr., 398
 Francis, Lewis, 429
 Frank, L. Wallace, 189
 Freedman, James R., 247

G

Gates, Aubrey D., 455
 Gettelfinger, Wilfred C., 434
 Graves, G. Y., 496, 254
 Gray, Laman A., 5
 Greco, Robert, 247, 251
 Grimes, Allen E., 85
 Gudex, Thomas V., 254

H

Hagman, Frank E., 193
 Hancock, J. Duffy, 21
 Harter, John S., 141
 Harris, Henry S., 155
 Helm, Fred Power, 108
 Hess, Elmer, 258
 Hesseltine, H. Close, 534
 Higdon, Leon, 254
 Hill, T. Russ, 159
 Hobbs, Thomas G., 541
 Holinger, Paul H., 494
 Holloway, James B., 62
 Howard, C. C., 406

J

Johnson, W. O., 181, 292

K

Keller, William K., 9
 Kiefer, Norvin C., 93

L

Lee, C. Marshall, 277
 Lich, Robert, Jr., 59, 204, 437
 Llewellyn, John S., 386
 Love, Jesshill, 251

M

McGaff, Charles, 305
 McLeod, Robert N., 52
 Martin, Homer B., 480
 Maurer, Joseph E., 59
 Massie, William K., 297
 Mersch, Edward B., 394
 Mills, Marion C., 403
 Moore, Roy Henry, 285
 Moorman, Lewis J., 67
 Moosnick, Franklin B., 187

181768

MAY 11 1954

Morris, Harold C., 390
Morse, Carlisle, 406

N

Noer, Rudolph J., 448
Norvell, C. Wyatt, 56

P

Parks, Paul J., 351
Pedigo, George, Jr., 529
Pennington, W. H., 381
Peyton, Leland, 254
Pierce, W. Vinson, 208
Price, Julian P., 302

R

Robertson, R. W., 491
Rust, Richard J., 98

S

Savage, W. Mountjoy, 254

Scott, Douglas E., 519
Sergent, Warren F., 139
Simpson, G. L., 1
Simpson, Paul, 473
Sonne, Irvin H., Jr., 251
Sprague, John S., 254
Steiner, Alfred, 359
Stetler, C. Joseph, 524
Stewart, J. Frank W., 229
Swarz, W. T., 85

U

Underwood, Bruce, 137

W

Weiss, Morris W., 14
Willmott, Robert W., 541
Woolfolk, William L., 151

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

JANUARY, 1953

NO. 1

Geriatric Surgery

Some Observations of Surgical Patients in the Older Age Groups

G. L. SIMPSON, M. D.

Greenville

It is a matter of record that our population is consistently becoming an older one, and we therefore have a constant increase in the ratio of older patients as compared with those under age sixty-five. In this country, between the years 1930 to 1940, there was only a 7% increase in total population while those from ages sixty-five to seventy-four increased 35% and those over ages seventy-five increased 38%. As the age year and number of these elderly patients increased, it naturally followed that more and more of them would live to develop surgical illness. It is gratifying to find our profession arising to the occasion and giving thought and care to this large group of people of whom many now receive definite relief from surgery, and many more are relieved of painful or otherwise noxious lesions so that their terminal days may be less unpleasant.

Classification of Operations

Our patients were seen in a smaller general hospital and the present study embraces one hundred and two patients having a total of one hundred and six major procedures, all of whom were operated by my associate or me during the past two years.

Their ages varied from 65 to 88. Sixty falling between the years of 65 through 75 and forty-two from 76 to 88.

They are classified as follows:

28 Prostatectomies—all retropubic, except one suprapubic

- 15 Cholecystectomies with or without CD exploration
- 14 Gastric and bowel resections
- 13 Hip fractures, openly reduced, fixed by nail
- 5 Hernias without obstruction
- 4 Appendectomies, three perforated
- 4 Biliary obstructions due to pancreatic lesions
- 2 Vaginal obliterations
- 2 Leg amputations
- 2 Bladder resections
- 2 Radical breasts
- 4 Hernia with obstruction, but without resection
- 3 Hernias with bowel resection
- 1 Fractured spine
- 2 Anal plastics
- 4 Open bone reduction

Anesthetics Used

Anesthesia breaks down as follows:

G. O. E.	52
Cyclo-propane	3
Open ether	28
Spinal, Novocaine Crystals	19
Pentothal Sodium	2
Saddle block	2

Death Rates

There were seven hospital deaths:

- 1 combined abdomino-perineal resection
- 1 pancreatic cancer with biliary obstruction
- 1 cancer of the bowel with obstruction
- 1 primary malignancy of the biliary tract
- 1 fractured hip, age 84, died of cerebral accident
- 1 leg amputation for obliterating arteritis
- 1 fractured hip with prostatic obstruction

Metabolic Changes

Let me generalize briefly, after which I shall discuss this subject from the stand-

Oration in Surgery delivered before the Annual Meeting of the Kentucky State Medical Association, Louisville, October 7-9, 1952.

point of study and pre-operative preparation, operative procedures, and finally postoperative care including some common complications, their prophylaxis, and treatment.

Metabolic changes incident to the process of aging, materially affect the older surgical patient in many respects.

(1) The circulatory system is less elastic and in many instances has incurred degenerative processes such as hypertensive states of varying severity; vascular sclerosis, generally, and cerebral and coronary changes specifically.

(2) Respiratory changes include reduced vital capacity due to chronic pulmonary fibrosis, bronchitis, bronchiectasis, alveolar sclerosis, and pulmonary tuberculosis.

(3) Hepatic changes producing an insufficiency either upon a cirrhotic, obstructive, or neoplastic background.

(4) Gastro-intestinal changes, include chronic gastritis associated with chemical imbalance in the gastric juices with malnutrition on that basis, and so called tropical sprue syndrome.

(5) Central nervous system manifestations which occur include personality changes which affect eating habits, states of agitation which interfere with rest and lead indirectly to malnutrition and final exhaustion.

(6) Wound infections are not well tolerated in the senile.

Pre-Operative Study

Is not greatly unlike that of any other surgical patient. The lesions of course would be appraised by the surgical staff, but in most instances it is well to have an internist from the medical staff enter the case early and not only participate in the admission study but also assist in any necessary pre-operative preparations which may be advisable. If surgery is advised, the anesthetist should also have an opportunity to study the patient before anesthesia is selected. No comment is necessary relative to history and physical examination except to remind you that in this present day pressure, so far as the physician is concerned, many lesions are completely overlooked because of a superficial physical examination after a brief discussion of symptoms with the patient. The laboratory is necessary to appraise certain features of the investigation, such as blood picture, including type, blood

protein, as well as the AG ratio; CO₂ combining power and occasionally blood chlorides; renal picture; hepatic function tests where indicated; and usually a chest plate.

There are many other procedures such as EKG, etc., which will at times be useful and indicated, and should be secured; but one should bear in mind the cost of modern medical care and delete any laboratory procedure which is not reasonably likely to shed light upon a given problem. Most of these patients have little or no earning capacity, and in many instances economic considerations are important to them.

If the patient is found to have a lesion which falls within the realm of surgical illnesses, then he should be prepared as well as possible to withstand an operative procedure, any specific deficiencies should be corrected. The nature of the lesion will determine how rapidly or leisurely the preparation should be done. In some instances of chronic illness, the patient is best prepared at home and readmitted at a later date for surgery. Of course many of these lesions require immediate attention, and some even emergency measures. Obstructive bowel lesions should be decompressed and hydrated and have blood, protein, and electrolyte deficiencies balanced as rapidly as possible. The acute abdomen should be looked into. The completely obstructed prostate may be placed on a catheter while the blood nitrogen picture is treated, and the kidney is permitted to excrete without bladder pressure. The fractured hip should generally be pinned on the day following admission.

In emergencies including penetrating abdominal wounds, perforated viscera, gastro-intestinal hemorrhage, etc., one finds a mortality rate which indicates, among other things, a lack of time to prepare the patient properly for surgery.

A discussion of the operative procedure should include the subject of anesthesia, suture material, etc.

Choice of Anesthetics

Local infiltration anesthesia is probably least noxious to the patient; but not too many procedures lend themselves well to the lack of relaxation, etc., which one obtains with it, and the average operating time is considerably longer with this type analgesia. Spinal anesthesia, while very desirable in younger adults, should be used sparingly in any patient with appre-

cialable vascular changes. If it is used, oxygen should be given liberally while the patient is on the table and in the room afterward if the procedure has been extensive. The low spinal or so-called saddle anesthetic, consisting of nupercain and 10% glucose is ideal for perineal and rectal procedures. It does not disturb the blood pressure, and it is not completely excreted for four to six hours, allowing the patient to enjoy a comfortable rest period without pain, postoperatively.

Most of the patients do well with inhalation anesthesia, preferably one of the gases, which should be liberally supplemented with oxygen. Curare may be given as an adjunct to secure needed muscle relaxation. Open drip ether is still used in many procedures and certainly has its place, however limited.

Pentothal is used for minor procedures and if properly administered where analgesia is desired without relaxation, is quite effective.

The wishes of the patient and his family in the choice of anesthesia should be rigidly disregarded unless it coincides with that of the attendant.

Intravenous fluids given usually by the anesthesiologist, certainly are no small factor in the supportive armamentarium of the surgeon. Many extensive procedures done daily in our hospitals could not be considered without blood, which should be given judiciously and as indicated during the operation. The quantities given and rate of flow require a nice degree of judgment on the part of the administrator and should be determined partially, at least, by the stability of the recipient's circulating system as well as the necessity of preventing hypotension for any appreciable length of time on the one hand and overloading the circulatory system on the other.

Suture Material

In my opinion there is a very limited place for catgut in the tissues of older patients. The wound should be dry when closed, carefully reapproximated layer to layer; and material should be silk, cotton or wire. In bowel anastomosis continuous silk 0000 or 00000 may be used for the first sutures and a second row of interrupted sutures of the same material. Peritoneum may be closed with a 00 chromic catgut if one wishes, but the fascia should be closed with wire or cotton Int. In jaundiced patients or those with a cach-

exia of malignancy, do not hesitate to use stay sutures, preferably a No. 2 braided black silk, and the skin should be closed with silk or cotton.

Operative Procedures and After Care

The operative procedure for a given lesion will be selected by the operator. If there is a choice, one should be selected to give the best possible result with the least trauma to the patient. Operating time consistent with a satisfactory procedure is quite significant in many in this age group, and will reflect in mortality figures.

The postoperative care points ultimately to rehabilitating the patient before there is established a habit pattern of bed rest, a loss of interest in surroundings, anorexia, decubitus ulcers, and joint and muscle stiffness interfering with ambulation.

Gastro-Intestinal Lesions

There are a few procedures which merit mention. Where at all possible, continuity of the bowel should be maintained in gastro-intestinal lesions; most senile patients do not handle colostomies well. There are several palliative cholecysto or choledoch intestinal enterostomies which are justifiable in relieving a slowly progressing obstructive jaundice incident to malignancy, where there is an extensive pruritus, and where the patient is a fair risk. We have had a few who lived one to two years postoperatively in a greater degree of comfort.

Uterine Prolapse

There is a small group in the seventh and eighth decades who have complete uterine prolapse with extensive benign ulceration and often troublesome cystocele, although otherwise fairly well preserved, and who receive a gratifying result with a vaginal obliteration. Be certain that the patient and one or two members of the immediate family thoroughly understand what is being proposed, and always secure written permission.

Fractured Hips

There is no place now for body cast, skin or skeletal traction, in the treatment of fractured hips. If the fracture is intertrochanteric or involves the distal two-thirds of the femoral neck, an internal fixation pin or screw with a femoral plate should be used. In fractures involving the

proximal one-third of femoral neck or through the head-neck junction, a well-leg traction splint is satisfactory. Unless these lesions are treated so that the patient may be out of bed in a chair and able to be upon and off a bed pan comfortably, they will not do well. After a pin has been properly inserted in the femoral neck, the patient should begin passive and active leg exercises the next day and should be up in a wheel chair two or three times daily. If not too sclerotic, early walking with a walker or crutches may be tried. Serial x-rays will determine when weight bearing is practical. Where the feet are immobilized in a well-leg traction splint, the patient should be placed in a wheel chair each morning and allowed to spend most of the day up.

Prostatic Obstruction

There has been wonderful progress in treating the prostatic obstruction in the past twenty years, largely due to a better understanding of the causes of postoperative oliguria, the advent of effective urinary antiseptics and antibiotics, early ambulation, and the tendency to close the bladder. Most of us have seen prostatectomies a number of years ago where the patient received no blood during the procedure and sustained a hypotensive state for some time, following which there was oliguria or anuria. An equally undesirable situation was a dry field with low pressure upon leaving the operating room, but active bleeding when the pressure returned to normal. Both of these situations are amenable to sustaining satisfactory blood pressure levels during surgery, and leaving the field dry by ligation or fulguration, but without hemostatic packs. Prolonged bed rest with the two-stage suprapubic transcystic prostatectomy could be survived only by the heartiest.

The transurethral procedure was the first remarkable improvement. The readoption however of the retropubic method of prostatectomy by Millen, made possible by the advent of sulfas and antibiotics, is the greatest forward step. Many of these grateful patients now leave the hospital within six to eight days after surgery as contrasted to twenty-one to thirty days for the two-stage supra pubic procedure with drainage.

This procedure is difficult in obese patients and requires moderate muscle relaxation for exposure. The late complication mentioned most frequently is osteitis

pubis, appearing several months postoperatively and producing disabling pain which usually subsides spontaneously without sequestration after a few months. Its etiology is not well understood but is thought to be surgical trauma.

Postoperative Complications

Published statistical studies of fairly large groups of elderly surgical patients relative to morbidity reveal the fact that respiratory complications are most prone to occur. The most frequently encountered one is atelectasis, which is fostered by poor respiratory excursions during and following anesthesia, especially where the patient is permitted to lie in one position, usually upon his back, for an extended period of time, and which is encouraged by excessive preoperative analgesia, inadequate preoperative atropine, a wet respiratory tree, and by returning the patient to his room without having aspirated mucus and other fluids from the trachea. As soon as the patient reacts, we like to have him follow a routine of taking ten or twelve deep breaths every hour, when awake, for two or three days and frequently changing position in bed (the patient should be encouraged to change his own position without help) and, of course, early sitting upon the bedside and early walking.

If the bronchial plug can be visualized, it should be removed by suction through a scope; otherwise, the routine of deep breathing, coughing, etc., and administration of Penicillin, Mycin, and Sulfa are indicated. In any recent postoperative with temperature elevation atelectasis should be considered first.

The true postoperative pneumonia is much less frequently found than was formerly thought. Many of these lesions are atelectasis. The postoperative cold should be recognized and vigorously followed. Coughing is a prime factor in the etiology of postoperative dehiscence.

Vascular

Phlebo-thrombosis and thrombo-phlebitis involving the veins in the lower extremities is an undeniable sequellae to absolute bed rest incident to illness, and also occur following trauma to the lower extremities. There is no condition more dramatic nor fraught with tragedy than repeated showers of pulmonary emboli from leg vein thrombosis. There are those who advocate ligations of these venous

channels and their various tributaries as well as the ileacs and vena cava. The results are not always happy and there are many who prefer less extensive procedures. Lowering the pro-thrombin time of the patients blood to a level of 20 to 40% of normal is used extensively and seems to be worth while. There will not be too many leg vein thrombosis if patients are walked early and persistently following surgery, but there are always a few extensive injuries, especially long bone fractures which preclude walking for several weeks. Many of these extremities can have passive and active exercises which are of some value. Occasionally one encounters coronary accidents, as well as cerebral accidents in the hypertensive, usually

without warning signs and usually not amenable to treatment in any spectacular degree.

Conclusion

- (1) There is an ever increasing number of patients in the older age group.
- (2) These patients if properly prepared and supported, withstand surgical procedures surprisingly well.
- (3) Postoperative care should be closely supervised.
- (4) Present morbidity and mortality rates in these older patients are much more respectable than those of a few years ago.

Considerations of the Surgical Treatment of Carcinoma of the Cervix Uteri

LAMAN A. GRAY, M. D.

Associate Professor Obstetrics and Gynecology, University of Louisville Medical School
Louisville

The surgical treatment of carcinoma of the cervix was largely abandoned in this country with the advent of radium therapy some forty years ago. It was recognized previously that only a radical hysterectomy could be considered. The 25% mortality on the operating table, a second 25% mortality while in the hospital, and the eventual cure of less than 25% of patients, caused our leading gynecologic surgeons to embrace the new radium treatment with its lessened immediate mortality and morbidity. By 1935 it was generally recognized that the 5-year arrest in general should approximate 35% after radium and x-ray therapy. Victor Bonney¹ in England during the same period continued radical surgery, completing 500 Wertheim radical hysterectomies with approximately the same percentage 5-year arrest. The fact that there was no increased cure-rate from the extensive surgery of this master surgeon discouraged most from the associated pain, morbidity and immediate mortality which necessarily followed the radical surgery.

Cure Rates

A few clinics report increasing cure-rates from radium and x-ray therapy. At the Michael Reese Hospital the radiation

therapist indicated 5-year arrest of 60%. Most extraordinary results have been reported by McKelvey² of approximately 80% 5-year arrest in Stage I cases. His great improvement was attributed to diet, vitamins and nursing care. A perusal of McKelvey's statistics shows an unusually large number of Stage I cases. More recently he has admitted that many of his cases were carcinoma in situ, called Stage 0, by the League of Nations Committee, and representing the very earliest possible carcinomas of the cervix. It seems that a more conservative estimate in general with improved techniques today would be about 45%. It is most interesting that in the Louisville General Hospital, 490 cases of carcinoma of the cervix uteri were treated between 1927 and 1945. Of these, 92 patients or 18% lived five years or longer. One wonders if this extraordinary and poor cure-rate may not represent the situation commonly over the country. This directly opposite figure of 82% death rate from McKelvey's similar figure for cure is not entirely due to poor treatment, as these were not only real carcinomas but almost all of them were advanced.

Irradiation Followed by Surgery

Brown³ has supported irradiation in reporting 24 cases with irradiation followed

Read before the Meeting of Kentucky Surgical Society, French Lick, Indiana, May 24, 1952

by surgery. While six (25%) showed gland metastases, he felt that larger doses in the other cases up to 5000-6000 r tumor dose in the parametrial regions must be cancericidal for the lymph glands. Actually the percentage in most series is about 25% anyway, which he had found. Also, it is our opinion that tumor dosages of this degree are excessively dangerous to life from the x-ray itself.

Role of Surgery

A revival of interest in surgery of carcinoma of the cervix has accompanied the work of J. V. Meigs, begun in 1939. Meigs has demonstrated that the primary operative mortality for this operation, formerly 25%, has become minimal. He has recently stated that 309 cases of radical hysterectomy with pelvic lymphadenectomy have been performed on his service with two deaths, one from embolus, the other from ruptured cerebral aneurism. This change has resulted from improved technique, improved anesthesia, available blood transfusions and antibiotics. Certainly it answers any question of primary mortality related to the surgery, the main reason that surgery was deleted completely early in this century.

Secondly, Meigs⁴ (1951) has presented a follow-up of 85 cases over 5 years, with 74.1% arrest. Of these, 57 were Stage I with 80.7% living, and 28 were Stage II with 60.7% living 5 years. Certainly these percentage arrests compare favorably with any ever reported, and with the exception of McKelvey's not entirely acceptable figures, may be the best. Counsellor (1951) states that 130 patients have had radical hysterectomy at the Mayo Clinic without a death, with survival of 86.2% for 5 years.

Irradiation Therapy Deficiencies

While irradiation therapy in carcinoma of the cervix, including radium and deep x-ray therapy, is definitely the standard treatment, with fair results, less morbidity, less pain and much less effort, there are definite deficiencies which must be considered. These include irradiation resistant cases, which some (Meigs, etc.) estimate to make up as many as 30% of all cases, recurrence in the cervix (estimated by Martzloff at 15% to 18%), recurrences after full irradiation therapy in the adjacent pelvic organs, irradiation resistant metastases in lymph nodes and irradiation

inflammation, ulcers, fistulas, bladder and bowel complications (White and Finn)⁵. Because of possible local recurrence and metastases to lymph glands, the Wertheim radical panhysterectomy with excision of the pelvic lymph glands definitely should be considered in therapy of this disease. For the extensive carcinomas, especially the extensive recurrences after irradiation and the extensive irradiation reactions, the extreme radical procedures of removal of the total pelvic organs have been practiced by some, lead by Brunschwig⁶. Our experience deals with seventeen Wertheim hysterectomies with gland dissections and one total extirpation.

The ages of our patients have varied from 29 to 54 years, averaging 39 years. Fifteen were thought to be clinically Stage I, limited to the cervix, while two were thought to be clinically Stage II with induration extending to the sides of the cervix in the broad ligaments.

X-Ray Therapy

Even in early carcinoma of the cervix uteri, extension must be considered to have occurred into the lymphatics of the parametrium in all cases, and on into the pelvic lymph glands in 20% to 25% of cases (Morton⁷, Meigs⁴). Actually, Bonney found metastases in lymph glands in 40% of his 500 operated cases. For this reason simple total hysterectomy is never to be considered in the treatment of this disease. The tumor in the cervix itself and in the lymphatics is ordinarily quite sensitive to irradiation therapy, but such is apparently not true when the tumor has become lodged in the lymph glands. Metastases in lymph glands are notoriously radiation resistant. Since in any radical hysterectomy with excision of the pelvic lymph glands the tissues cannot possibly be excised in toto, or in block, but rather piece-meal, always breaking across the connecting lymphatics which may contain carcinoma, it has seemed most logical to us to use preoperative x-ray therapy. Radium therapy alone will not destroy tumor appreciably in the broad ligaments and has such a caustic local action on the adjacent vagina, bladder and rectum that it would seem less favorable for preoperative use, delaying healing and possibly leading to greater incidence of fistula formation. For this reason preoperative x-ray alone was used in 10 of our cases,

while preoperative x-ray and radium were used in two, preoperative radium alone in one, and the surgery alone was used in four cases.

Importance of Surgery in Metastases

The most interesting findings in this very small series are demonstrated in Table I and Table II, in which the original clinical impression of 15 Stage I cases and 2 Stage II cases proved after operation to be 9 Stage I, one Stage II and 7 Stage III, the latter seven having metastases in glands at the pelvic wall. This incidence of 41% metastases to glands is illuminating and important. This incidence is higher than most of those in the very few reports in the literature and may be peculiar to this small series. On the other hand it is obvious that the more glands studied the more metastases may be found. This large percentage of metastases brings to our mind the possible importance of surgery in these cases.

The other interesting point in this small group is that 12 patients with preoperative x-ray approximating 3000 r tumor dose to the glands had viable appearing metastases in five cases. This again is 41% and is not valid for general conclusions because the series is so small, but it is suggestive. We believe that a tumor dose of this degree approximates that which can be given with safety to the patient.

Table I			
	Cases	Positive Glands	Ca. in Excised Cervix
Pre-Op. X-Ray			
(With Radium 2)	12	5	5
Pre-Op. Radium	1	1	0
Operation Alone	4	1	4
	—	—	—
Total	17	7	9

Table II						
CLINICAL STAGES						
Before Operation:						
I			II	III		
1A	1B	1C				
—	—	—				
7	3	5	2			0
Corrected After Study of Removed Glands:						
3	2	4	1			7

Wertheim Operation

The radical operation of Wertheim hysterectomy with excision of the pelvic lymph glands has been described by Meigs, and particularly well by Twombly⁸. In our series the surgery was performed five to six weeks after the completion of x-ray therapy. The time required for each operation varied from two-and one-half to five hours. In each instance from two to five pints of blood were used. There were two main difficulties. One was obesity. Even a very long incision may give a very deep pelvis. Retroperitoneal fat has made dissection most difficult in some cases. The other problem has been securing bleeding from the multiple uterine veins which anastomose through the posterior pelvis and the veins beneath the bladder. Retraction of the latter can produce difficult situations. Removal of the upper third or half of the vagina has also been associated with troublesome bleeding from the lateral veins beneath the bladder.

Results of Operation

Catheters were not placed in the ureters in any case. The ureters can easily be isolated and followed with appropriate exposure, and there is probably less trauma without indwelling catheters. A ureteral fistula occurred in one case only, which fortunately healed spontaneously in three months. One patient is known to have a rather marked asymptomatic hydronephrosis on one side, not present in preoperative x-rays. Three cases developed a pelvic abscess after the operation, relieved by breaking open the recently sealed vaginas. No drains have been used in any case, the vagina always being left entirely open with a lock stitch around the cuff for hemostasis. It was remarkable how quickly the vagina sealed over in 7 to 10 days. There was no operative mortality, and in general the morbidity was not serious. It is interesting, however, that approximately three months was required for these patients to regain their strength.

Although only three and one-half years have elapsed from our first case, fourteen of the patients show no evidence of recurrence. Two patients are dead and one has an inoperable recurrence in the short vagina and bladder. The latter case was originally clinically Stage II, had intensive radium and x-ray therapy. After six

months there was recurrent carcinoma in the cervix with positive biopsy. Six months after radical surgery, recurrence was noted in the apex of the short vagina and base of the bladder. The patient refused further removal of the vagina and bladder, which was explained as a most serious procedure. One of the two patients dead had a relatively small adenocarcinoma of the cervix (the remainder were all squamous cell carcinomas). After deep x-ray therapy and the medical operation, metastases were found in numerous small excised lymph glands and in one ovary. After six months she died of generalized abdominal metastases. The other patient that had died merits a special paragraph.

Case Report

This last patient was 31 years old (Fig. 1). Six months earlier, carcinoma of the cervix had been found and treated intensively with x-ray and radium in another city. There was recurrence in the large cervix with positive biopsy and extension into the left broad ligament, but the whole mass was moveable. Surgery consisted of a radical hysterectomy and removal of the lymph glands along with the extension around the left ureter. There was extensive local cancer and metastases in the glands, apparently all removed. Four months later there were metastases in the vaginal wall, treated with local radium plaques and radium needles. Other small recurrences appeared in the vagina; later, a vesico-vaginal fistula developed and a nodule could be felt in the rectum near the apex of the short vagina. Pyelograms showed the left kidney functionless, the right kidney with hydronephrosis but normal function. Finally, one year after the first operation, a second operation was performed, removing the blad-

der, urethra, entire vagina and vestibule, rectum and lower sigmoid, tying the left ureter purposely, forming a colostomy on the left side and cutaneous ureterostomy on the right. In removing the mass it was necessary to cut through cancer growing into the right lateral wall of the pelvis. For three months the patient seemed to improve. Then she developed a hard mass in right lower quadrant of the abdomen and right inguinal region, dying in cachexia and great pain six months after the second operation. This young woman with radiation resistant carcinoma might have lived had the much more radical and seemingly mutilating operation been performed the first time. Certainly she had no qualms about the surgery, as she wanted very much to live.

Trend in Treatment

The object in presenting this small group of cases is to point out what may be a trend in treatment of cancer of the cervix. This little experience suggests to us that seemingly early carcinoma of the cervix commonly has already spread to the lymph glands where it may be relatively insensitive to irradiation therapy. The theory of giving preoperative x-ray therapy to destroy or decrease the local tumor and to destroy tumor in the still sensitive lymphatic connecting channels and of following with extensive surgery and removal of the pelvic lymph glands seems plausible. We do not choose to use this treatment except in the relatively early and favorable cases. There is no logic in having a mortality because of a hard and fast feeling for surgery. Consequently, the majority of cases we see are treated with radium and x-ray, largely because of the advanced stage, obesity, age or medical contraindications to surgery. Only the most careful and wide dissections are indicated, never the simple or conservative total hysterectomy. Many of the leaders in cancer therapy fear that any emphasis on surgery will lead to widespread incomplete operations, and disagree with any suggestions toward surgery. However, it seems to us that if progress is to be made, we must recognize the pathological characteristics of this tumor with its sensitivity or insensitivity and mode of spread. First, we must find more and more early cases by performing biopsy of every erosion of the cervix, then decide whether to use the standard and worthwhile irradiation therapy alone,

Figure 1



or to add this particularly time-consuming and accurate surgery.

Summary

1. A series of seventeen cases of carcinoma of the cervix have had radical pan-hysterectomy and excision of the pelvic lymph glands. In seven, metastases have been found in lymph glands near the wall of the pelvis. Twelve of these patients had preoperative x-ray therapy with approximate tumor dose of 3000 r to the region of the glands. Of these twelve, there were five cases with apparent viable metastases in the lymph glands.

2. While it appears from the literature that metastases in glands may be destroyed by deep x-ray therapy, there is increasing evidence that metastases in lymph glands are relatively insensitive in an appreciable percentage. For this reason of relative insensitivity of the metastases, it appears that radical surgery with gland dissection should be considered in cases favorable for surgery. Preoperative x-ray therapy to the parametria appears logical to destroy the usually sensitive tumor in the connecting lymphatics as these must be broken across in the dissection. It is emphasized that ordinary total hysterectomy has no place in treatment of carcinoma of the cervix. The radical surgery is time-consuming, requires much effort, the best of anesthesia and available blood for multiple transfusions.

3. The results from carefully planned irradiation therapy with properly distributed local radium and multiple ports for x-ray therapy aimed at the obturator, hypogastric and external iliac gland areas is not to be deprecated. With great care and continued observation of the patients, extremely gratifying results follow in more than half of the cases. But, radiation insensitive tumors, local recurrences after therapy and the problem of metastases in lymph glands make us suspect that a carefully planned combined attack should be used in early favorable cases.

4. The greatest possibility of increasing the cure-rate lies in early diagnosis. This can only be done in our area by the routine use of the biopsy forceps on every erosion of the cervix before cauterization. The only exception is the soft virginal erosion in very young women. When the earliest cases are found it is possibly immaterial as to whether irradiation or surgery is used.

REFERENCES

1. Bonney, V. J. *Obst. and Gynec. Brit. Emp.* 48:421, 1941.
2. McKelvey, J. L., Stenstrom, K. W., and Gilliam, J. S. *Am. J. Obst. and Gynec.*, 58:896, 1949.
3. Brown, W. E., Meschan, I., Kerekes, E., Sadler, J. M. *Am. J. Obst. and Gynec.* 62:871, 1951.
4. Meigs, J. V. *Am. J. Obst. and Gynec.* 62:854, 1951.
5. White, W. C., and Finn, F. W. *Am. J. Obst. and Gynec.* 62:65, 1951.
6. Brunswick, A., Jordan, M. J., and Pierce, V. K. *Am. J. Obst. and Gynec.* 55:237, 1950.
7. Morton, D. G. *Am. J. Obst. and Gynec.* 49:19, 1945.
8. Twombly, G. *Cancer.* 3:975, 1950.

When A Psychiatric Case Walks Into Your Office

WILLIAM K. KELLER, M. D.

Louisville

There has been a greatly increased interest in Psychiatry since World War II. Part of this was due to the tremendous number of men who were unable to function in the armed forces. As a result of attempts to remedy this condition there grew a greater demand for psychiatrists. In the effort to meet these needs many physicians were pressed into service as psychiatrists with a short cram course as their main background. Much publicity resulted from these efforts with resultant over-emphasis on the miraculous curative ability of psychiatry. Psychosomatic medicine became a popular term. Some schools of thought advanced theories which offer-

ed great hope to persons with mental or emotional difficulties. These theories were so hopeful and so easily did away with the usual problems that they were quickly seized by the public and the press.

Psychiatry Over Publicized

Today the ego, super ego, inferiority and Oedipus complexes are part of our common language. The radio, movies, and television got into the act showing that the psychiatrist could cure almost any sort of difficulty from chronic alcoholism to paranoia! If you were neurotic it was because of a deep-seated hostility toward your mother, or perhaps because of a castration complex involving your father. All human behavior became understand-

able and therefore curable. Although many times we feel we can see some of these mechanisms at work, we know there are many illnesses which require much greater care and which often respond poorly. In short then it is fair to say that as the result of such publicity the medical practice of psychiatry has been oversold to the average person. A psychiatrist is a physician who has a particular interest in human problems and, as a physician, is subject to the usual defeats one meets in attempting to alleviate human distress. It is an humbling thought to realize that every patient we ever treat is going to die some day! Although this is a fact, there are many things we can do to put off the fatal day and there are many procedures we can follow which will minimize suffering. To that end we are dedicated and we must constantly be alert to such opportunities. So far we have talked about our inabilities and now it is time to talk of the things we can do.

Importance of Early Recognition

In all aspects of medicine the first step toward treatment is the recognition of the illness. It is not necessary for every physician to be able to diagnose accurately all forms of emotional or mental illness any more than it is required of him to be able to perform all surgical procedures. However, since we are physicians we must recognize when we are in difficulty and when we need help. Some psychiatric cases constitute emergencies whereas others, of course, do not, just as some surgical cases must be hospitalized immediately and others may be treated more conservatively in the home.

The Excited Group and Treatment

Those psychiatric cases which constitute emergencies can for our purposes be divided into two groups: The excited, disturbed, or delirious patient and the overly-quiet, depressed or withdrawn patient. In the excited group the etiology may be vastly different but there is the common denominator of the excitement and disturbing behavior. It is the doctor's job to determine, if possible, the cause for this current excitement. If it is a delirium as a result of alcohol or bromide intoxication we can most probably care for this type of patient by withdrawal of the toxic agent and the administration of fluids, vitamins, and perhaps sedation. In general, the drug with which you are most

familiar is usually the safest in your hands but it should be pointed out again that ordinary C. P. Paraldehyde is an excellent sedative with a minimum of toxicity. It is rapidly absorbed and can be given by mouth, by rectum, intramuscularly or intravenously. If one is satisfied that this is not a toxic delirium but that we are dealing with a disturbed, unruly, and usually frightened patient then steps must be taken to transport the individual to a hospital equipped for such care. The simplest method of transportation is under sedation. The type of patient to which we have been referring will demand attention by the very nature of his illness but there are other patients who are just as sick but whose very quietness does not make their illness evident. A patient who is profoundly depressed never constitutes the problem to the community that the individual does who is mildly elated.

Potential Suicide

In our slowed and depressed patients the greatest threat is that of potential suicide. Any physician who sets himself up as being able to differentiate between that depressed patient who will kill himself and the one who will not is in for a sad experience. Patients in all categories of depressions, schizophrenic withdrawal reactions and hysteria have been known to kill themselves. Here the physician's responsibility would seem to be first to interpret to the family the medical potential for suicide and then to have them share the responsibility of protecting this person from himself until such time that psychiatric hospitalization can be accomplished. Once in such a hospital the newer specific treatments can be instigated from insulin and the unfortunately named electric shock therapy down to the modern electric cauterization of the frontal lobes.

The Neurotic Group

So much for the acute illnesses which fortunately do not comprise the greatest number of psychiatric patients who will come into your office. These are the neurotics, the hypochondriacs, the neurasthenics, that frustrating group of individuals who cannot produce organic disability to account for their complaint pattern. They are time-consuming and poorly rewarding in satisfactions to the physician. They are the group who according to a recent survey constitute about 50% of the office

patients of a general practitioner. Some of them have been shopping among doctors for years. Some of them are extremely profound and perhaps should be referred for specific psychiatric help. The majority of them, however, will be folks very much like ourselves and varying from us only in degree. They will be under certain tensions, pressures, worries, anxieties, the like of which you and I have and because of the wondrous mechanism we call the human body those pressures and tensions will reflect themselves in certain physical discomforts the same as they do in you and me.

Symptoms and Treatments

As a result of these anxieties the patient will have discomfort or pain some place or another and he will come to you as a physician, his friend, his confidante, a man with special knowledge and skill concerning diseases. He will tell you that he hurts here or there or that he has this or that symptom. You will listen, examine him, and find no discernible organic disease. Does this patient now deserve to be told "There is nothing wrong with you?" Having placed this much confidence in you, having so far as he knows put his life in your hands does he deserve nothing more than the insult of "It is your imagination?" It seems he deserves more than that. He deserves a few minutes of your time in which you explain to him that you are very happy to tell him that the supposedly offending organ is functioning well, perhaps even better than average because it is capable of reflecting emotional tensions, pressures, and worries and because he is an intelligent person who did have something wrong with him you wonder if he has any idea as to what might be bothering him. If we can remember that each and every one of us has at one time or another had an ache or a pain which we could not account for to our own satisfaction then surely that will help us to be tolerant of our patients who do not have a medical background.

Advice to Physicians

Most of you, I am sure, have had the very gratifying experience of having your patients take you into their confidence and tell you of their anxieties and worries. The average physician is usually so busy that he cannot spend too much time talking with each patient and this is not necessary but a simple non-technical ex-

planation of how tension acts on the body can be extremely beneficial and reassuring to this person who has come to you for help. Simple comparative explanations of how emotions work on the body can be accepted by almost anyone. We talk of somebody or something making us sick, showing that the emotional angle is reflected in the body. Many perfectly trained athletes cannot go directly from the dressing room to the field without a trip to the toilet. The majority of people can understand such simple non-technical illustrations and will actually be relieved to know that the anxiety they had about their heart condition or their stomach cancer or some other catastrophic happening is more often than not a pretty normal response to what is to them a distressing circumstance. This type of face saving, intelligent respect for your patients will certainly help most of them whom you will see in your offices.

Intellectual Honesty Due the Patient

If you should feel that the patient needs more intensive psychiatric treatment a great deal of his continuing progress is dependent upon the way in which he is referred to a clinic or a private psychiatrist. One of the most common mistakes made is to tell the patient you are referring him to Dr. So-and-So for a check-up and then have him arrive and be completely astounded and oftentimes quite upset when he finds himself in the hands of a psychiatrist. A simple rule of thumb is the retention of intellectual honesty and a simple statement to the patient that you believe he needs psychiatric help and are therefore referring him to someone or to some hospital where he can obtain the necessary treatment.

In brief then, we should be completely factually honest with our patients at all times to retain that confidence which they have placed in us by their very appearance in the office: to respect them as individuals who do have something wrong with them although it may not be the kind of difficulty which can be surgically removed.

The Chronic Alcoholic

There is one last area in which psychiatry has also been oversold and that is in the realm of a chronic alcoholic. It is generally agreed that there is little to be done for the chronic alcoholic who does not feel a need within himself for stopping drink-

ing. As physicians, we may help to tide one over in an acute physical illness as the result of alcoholic ingestion but we are often unable to instill in them the need for giving up this habit.

Summary

In summary then, we have tried to show some of the changes which have taken place in psychiatry, and of the need to take it out of the realm of the fiction writer and put it back into medicine where it belongs. We have tried to point out that there are certain psychiatric emergencies which must be treated as

such, but that the majority of psychiatric patients can and should be treated by the general practitioner. This treatment contains no magic or legerdemain, but consists of simple, commonsense, non-technical explanations of the possible physical effects of emotions upon the human body. And, lastly, as has been said before, the physician, himself, must be honest in his attitude, consistent in his behavior toward the patient, accepting him as a sick person who needs his help and one whom he is more than willing to aid with every method at his disposal.

Histoplasmosis

J. W. ARMSTRONG, M. D.

Berea

The Berea College Student Health Service has given the Mantoux tuberculin test to students for the past 20 years. During these years the percentage of positive reactors has changed from a high of 61% in 1942 to 19.5% in 1949*. Positive reactors have had chest x-ray studies. From time to time it was noted that some students having chest films for other purposes and who had not reacted to tuberculin had pictures similar to many of those who had reacted and in whom a diagnosis was made of primary type infection pulmonary tuberculosis. During the war we found students rejected by Selective Service on the basis of chest films and a diagnosis of tuberculosis but who failed to react to the Mantoux test.

In 1945 we read of studies that had been made showing a definite relationship between calcification in the lungs and histoplasmosis. We arranged to secure the material histoplasmin for skin tests from the U. S. Public Health Service.

A brief historical background shows that the infection with *Histoplasma Capsulatum* was first described by S. T. Darling (1,2,3) in Panama in 1906. All early cases reported were generalized infections that proved fatal. In 1944 Christie and Peterson (4) at Vanderbilt recovered *Histoplasma Capsulatum* from the blood and bone marrow of an infant admitted with a tentative diagnosis of acute

leukemia. They prepared an antigen called histoplasmin, diluted to use as a skin test solution. They found that the patient and parents reacted to this. Routine tests were then run on all admissions to the children's ward for some time. 23% were found to be reactors. Many of these had lung calcifications on x-ray study and at the same time a negative tuberculin test.

Goss and associates (5) had shown in x-ray studies in Tennessee in 1938 that a large percentage of those with calcified lung lesions had negative tuberculin tests. The films were so typical of the picture that had been considered as primary tuberculosis that a question of the validity of the tuberculin test was raised. Lumsden and Dearing (6) realized that some abnormal factor was present in Tennessee, Kentucky and adjacent areas, probably in the soil, considering it a part of the tuberculosis picture. Christie's further studies (7) as well as those of Palmer (8) showed that positive reactors to histoplasmin came from certain geographical areas, notably Kentucky and Tennessee. These reports stimulated our action.

A report of our first study in 1946 was given in the American Journal of Public Health (9). In 1949 we cooperated in another study program that was being carried out by the U. S. Public Health Service among college students. For the Mantoux test a single dose of P. P. D. Tuberculin 0.0001 mg. was used as recommended by Palmer (10). The histoplasmin was supplied by the U. S. Public Health Serv-

*Tuberculin testing of students in 1952 showed 15% reactors.

Read before the Madison County Medical Society, Richmond, January, 1952.

ice. Their representative, Marion LaVenture, read the tests. We found that reactions with soft induration which we had classified as positive in 1946 are now considered as non specific. So in the 1949 study only those with hard induration were classified as reactors. If this had been done in 1946 there would have been only a slight decrease in the percentage of reactors. The State Department of Health of Kentucky took the chest x-rays on 35 mm film with a mobile unit. The following Table shows the summary of the two studies combining data from the 1946 and 1949 studies. The mountain counties of Kentucky are listed and compared with other counties.

is still uncertain. The question has been raised as to part played by dogs and rodents. McClellan (11) reported two cases from Kentucky. He suggests the dog as a source. In spite of mild or no symptoms extensive calcified lesions do develop in people.

Because of the more and more extensive use of mass chest x-ray surveys without the use of tuberculin tests the finding of lung calcifications in certain areas

Table I.

SUMMARY OF TUBERCULIN AND HISTOPLASMIN STUDY OF KENTUCKY STUDENTS
AT BEREA COLLEGE IN 1946 AND 1949.

COUNTY OF RESIDENCE	A. POS		B. POS		C. NEG		D. NEG		FARMER'S		DISPOSABLE	
	HYST.	POS.	HYST.	POS.	HYST.	POS.	HYST.	POS.	POS.	NEG.	POS.	NEG.
Mountain Counties												
Alair	1	0	0	3	3	1	6	1%	4	3	57%	
Bath	0	1	0	0	0	1	0	100%	0	1	70%	
Bell	4	4	4	10	7	4	4	100%	4	4	100%	
Byrd	1	1	1	8	6	2	14	15%	9	7	70%	
Chesbitt	1	4	9	8	5	17	18%	10	12	4	60%	
Clay	1	0	9	9	9	10	10	100%	10	10	100%	
Craig	6	6	14	7	11	21	34%	20	12	20%		
Clay	15	3	11	16	16	29	37%	24	19	50%		
Elbert	2	1	0	4	4	3	12	9%	4	4	50%	
Campbell	2	3	0	3	3	6	33%	6	6	55%		
Elliot	2	4	0	3	3	6	8	45%	4	4	50%	
Ellis	4	2	10	11	13	35	4	1	1	1	70%	
Evatt	6	6	12	25	11	38	25%	19	32	36%		
Gerrard	2	1	1	5	4	4	45%	5	8	8	70%	
Greene	0	2	7	7	2	10	18%	2	2	2	50%	
Ham	1	6	18	33	7	51	12	19	39	33%		
Jackson	3	1	3	7	3	10	23%	8	6	6	50%	
Johnson	0	2	7	11	21	18	10%	7	13	34%		
Kearney	4	4	4	4	3	37	12	3	3	33%		
Kearney	6	6	6	11	10	19	34%	13	16	23%		
Lawrence	2	3	12	5	6	15	25%	14	6	70%		
Lawrence	2	2	7	3	22	3	2	3	3	33%		
Lee	1	0	6	8	1	16	8%	7	9	9	34%	
Levell	3	5	6	7	31	8	25%	10	26	24%		
Lincoln	0	10	24	4	14	34	8	4	4	40%		
Lincoln	1	0	6	3	3	8	14%	5	2	70%		
Madison	0	6	15	21	6	21	6	15	16	16%		
Madison	6	3	131	42	91	135	29%	180	61	75%		
Maxwell	6	19	3	8	8	12	40%	6	12	40%		
Maxwell	0	0	0	0	0	0	0	0	0	100%		
Morgan	2	0	5	1	2	6	25%	3	1	33%		
Owens	2	1	1	0	3	1	75%	3	1	75%		
Pike	13	9	23	59	20	67	34%	34	41	41%		
Pike	1	1	13	10	4	23	15%	16	11	60%		
Powell	3	0	4	3	3	6	35%	9	0	100%		
Russell	7	8	25	13	13	38	16	36	16	40%		
Rockcastle	6	0	18	10	5	25	16%	23	10	40%		
Rowan	1	0	1	0	1	1	50%	2	0	100%		
Russell	1	2	16	4	9	19	30%	22	6	70%		
Shelby	2	1	9	9	12	14	10	12	14	14%		
Whitley	1	8	16	6	24	80%	13	17	45%			
Wolfe	0	6	4	0	9	0	8	4	4	5%		
Total for Mountain Counties	172	112	661	415	284	874	206	633	526	666		
all other counties	29	9	61	30	58	61	26%	88	39	64%		
Total for all Counties-KENTUCKY	199	121	622	445	332	935	226	721	565	646%		

In 1949 there were 131 students who had had previous positive Mantoux test by the Student Health Service who were not included in the above table. They are combined in the following summarizing Table II, representing students from all states.

It is now generally believed that histoplasmosis is by no means a fatal infection, that large numbers show evidence of mild or asymptomatic involvement. The source of infection and method of transmission

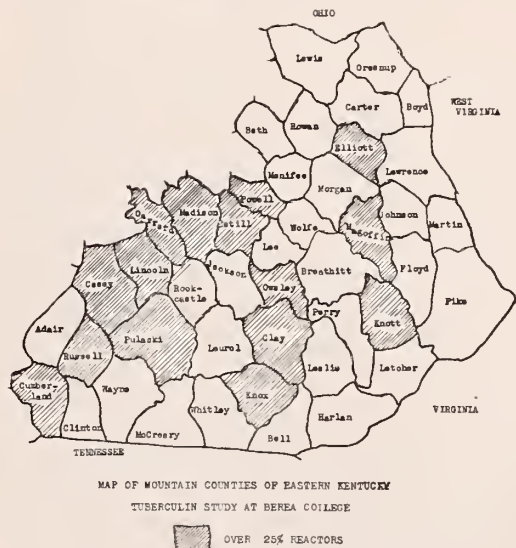
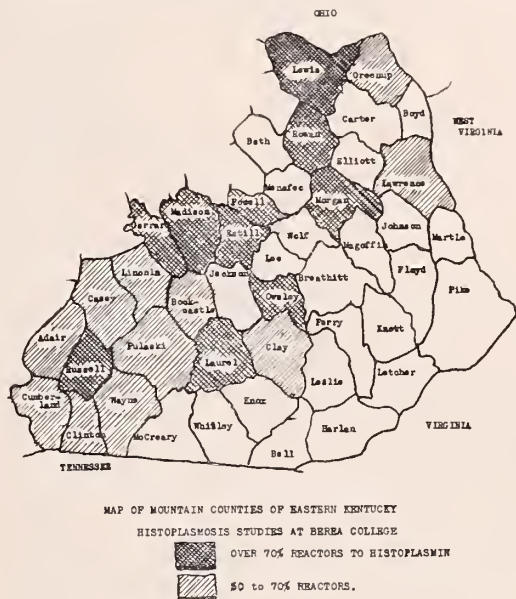


TABLE II

Test	Number Tested			Percentage of positive reactors.		
	1946	1949	Totals	1946	1949	combined '46-'49.
Tuberculin	1236	1287	2523	33%	19.5%	25%
Histoplasmin	1225	1156	2381	50%	46.8%	48%

such as Kentucky may result in a false diagnosis of primary type pulmonary tuberculosis. Studies such as these at Berea College tend to demonstrate the continued value of the use of the tuberculin test in our area. The combined use of histoplasmin and tuberculin will result in a better understanding of many of our patients.

REFERENCES

1. Darling, S. T. J.A.M.A. 46:1283, 1906.
2. Darling, S. T. Arch. Int. Med. 2:107, 1908.
3. Darling, S. T. J. Exper. Med. 11:515, 1909.
4. Christie, A., and Peterson, J. C. A.J.P.H. 35:1131, 1945.
5. Gross, R. S. et al. Amer. J. Tuberculosis 38:441, 1938.
6. Lumsden, L. L., Dearling, W. P., A.J.P.H. 30:219, 1940.
7. Christie, A., Peterson, J. C., J. Pediat. 29:417, 1946.
8. Palmer, Carol. Public Health Reports 60:613, 1945.
9. Armstrong, J. W., A.J.P.H. 39: 1949.
10. Palmer, Carol. Public Health Reports, Vol. 56, No. 2.
11. McClellan, James T. J. Ky. State Med. Assoc. 49: 1951.

Seasonal Incidence of Acute Myocardial Infarction in the Kentuckiana Area

MORRIS M. WEISS, M. D.

Associate Clinical Professor of Medicine University of Louisville School of Medicine
Louisville

The seasonal variation of acute attacks of myocardial infarction has been stressed in reports from scattered cities in the United States. A high incidence in the winter and spring months occurs in Philadelphia (1), Cincinnati (2), Boston (3, 4, 5), Nashville (6), Los Angeles (7), Pittsburgh (8), and New York (9). Seasonal variations in the death rate of coronary disease have also been reported with a peak incidence in the winter months (10, 11, 12). Season was an unimportant factor as a precipitating cause of an acute myocardial infarction in Detroit (13), Chicago (14), and Columbus (15).

Seasonal Incidence

This report is an analysis of the seasonal incidence of acute myocardial infarction in the Kentuckiana Area. This area includes Louisville and the contiguous parts of Kentucky and Southern Indiana. All patients were seen in private practice, at home or in the hospital, and only those were included in whom the date of onset was unmistakable. All the patients lived long enough to have positive clinical electrocardiographic evidence of the diagnosis. In cases with subsequent infarcts, only those whose attacks were separated by at least three months were included. The population of this area is relatively stable and there is not great seasonal migration.

A total of 752 attacks were analyzed. Study of the following table shows that the peak incidence was in December with the lowest number of cases in November. The months were divided into winter-spring which included December through May, and the summer-fall months of June through November. The seasonal distribu-

tion is strikingly shown in Chart I which shows a high winter-spring and low summer-fall level in the curve. This high incidence in the winter-spring months is similar to the majority of similar studies from various parts of the United States.

Responsible Factors

It is speculative to attempt to determine factor or factors responsible for the high winter-spring incidence. The majority of the authors suggest that the most important factor is the greater frequency of infections during the colder months. An attack of myocardial infarction may occur during convalescence from an acute infectious disease, most often an infection of the respiratory tract (16). Bean and Mills (2), believe that greater frequency of infections and heightened gen-

SEASONAL INCIDENCE ACUTE MYOCARDIAL INFARCTION

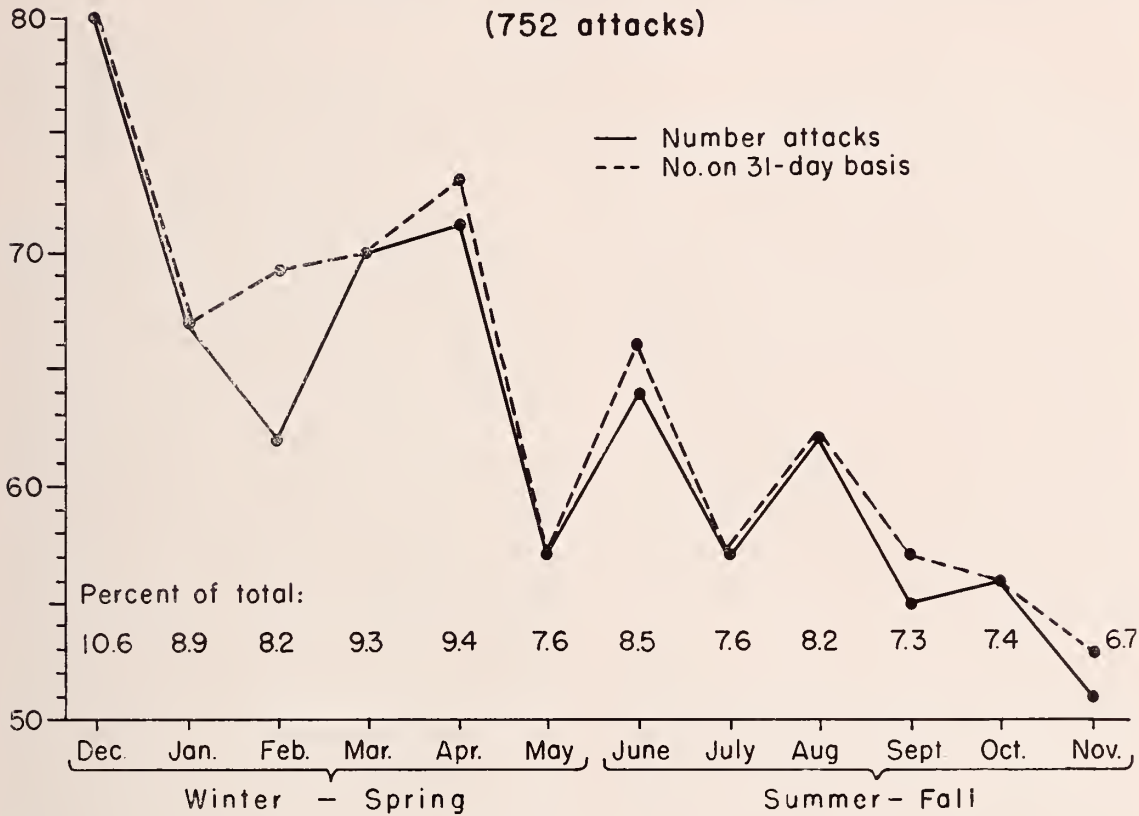
Month	Number Attacks	No. on 31-Day Month Basis	% of Total
January	67	67	8.9
February	62	69	8.2
March	70	70	9.3
April	71	73	9.4
May	57	57	7.6
June	64	66	8.5
July	57	57	7.6
August	62	62	8.2
September	55	57	7.3
October	56	56	7.4
November	51	53	6.7
December	80	80	10.6
Total	752		

TABLE I

Seasonal Incidence

ACUTE MYOCARDIAL INFARCTION

(752 attacks)



eral body metabolism probably act together to increase the winter incidence.

Since there was a similar high winter-spring incidence in the subtropical climate of Los Angeles as in the north temperate regions, Hoxie (7) discounts the degree of seasonal temperature variation as a factor. Mintz and Katz (14), who found that the disease in their patients did not follow a definite seasonal trend, believe that the seasonal variation reported by others is to a large extent due to summer migration from the large communities on the part of susceptible persons. Most reports discount this probable explanation.

Summary

There is a high incidence in the winter and spring months of 752 attacks of acute myocardial infarction as observed in the Kentuckiana area, Louisville and the contiguous parts of Kentucky and Southern Indiana.

REFERENCES

1. Wood, F. C., and Hedley, O. F., "The Seasonal Incidence of Acute Coronary Occlusion in Philadelphia," *M. Clin. No. Amer.*, 19:151, 1935.

2. Bean, W. B., and Mills, C. A., "Coronary Occlusion, Heart Failure and Environmental Temperatures," *Am. Heart J.*, 16:701, 1938.

3. Bean, W. B., "Infarction of the Heart—A Morphological and Clinical Appraisal of 300 Cases, Predisposing and Precipitating Conditions," *Am. Heart J.*, 14:684, 1937.

4. Gertler, M. M., Driskell, M. M., Bland, E. F., Garn, S. M., Lerman, J., Levine, S. A., Sprague, H. B., and White, P. D., "Clinical Aspects of Coronary Heart Disease. An Analysis of 100 Cases in Patients Twenty-Three to Forty Years of Age with Myocardial Infarction," *J.A.M.A.*, 146:1291, 1951.

5. White, P. D., "The Prognosis of Angina Pectoris and of Coronary Thrombosis," *J.A.M.A.*, 87:1525, 1926.

6. Billings, F. T., Jr., Kallstone, B. M., Spencer, J. L., Ball, C. O. T., and Meneely, G. R., "Prognosis of Acute Myocardial Infarction," *Am. J. Med.*, 7:356, 1949.

7. Hoxie, H. J., "Seasonal Incidence of Coronary Occlusion in a Mild Climate," *Am. Heart J.*, 19:475, 1940.

8. Mullins, W. L., "Age Incidence and Mortality in Coronary Occlusion, A Review of 100 Cases," *Penn. Med. J.*, 39:322, 1936.

9. Rosahn, P. D., "Incidence of Coronary Thrombosis in Relation to Climate," *J.A.M.A.*, 109:1294, 1937.

10. Bean, W. B., "Infarction of the Heart; Clinical Course and Morphological Findings," *Ann. Int. Med.*, 12:71, 1938.

11. Hedley, O. F., "Five Years' Experience (1933-37) with Mortality from Acute Coronary Occlusion in Philadelphia," *Arch. Int. Med.*, 13:598, 1939.

12. Brown, R. H., Jr., and Pearson, R., "Seasonal Variations in Heart and Coronary Disease as Related to Various Environmental Factors," *Am. Heart J.*, 35:763, 1940.

13. Smith, F. J., Keyes, J. W., and Denham, R. M., "Myocardial Infarction: A Study of the Acute Phase in 920 Patients," *Am. J. M. Sci.*, 221:508, 1951.

14. Mintz, S. S., and Katz, L. N., "Recent Myocardial Infarction: An Analysis of Five Hundred and Seventy-Two Cases," *Arch. Int. Med.*, 80:205, 1947.

15. Silberstein, J. S., Hatfield, C. J., and Orjet, P. E., "Factors Influencing the Prognosis in Acute Myocardial Infarction," *Midwest Regional Meeting, Am. Coll. Phys.*, Columbus, Ohio, Oct. 13, 1951.

16. Boas, E. F., and Boas, N. F., "Coronary Artery Disease," *Chicago Year Book Publisher's*, 1949, p. 197.

The Doctor's Day in Court

HON. L. R. CURTIS

Judge of the Jefferson County Circuit Court

Louisville

I consider it a distinct honor to have been invited to address this convention. For more than three decades I have been closely associated with the medical profession of the state of Kentucky. Your problems, your hopes, and your aspirations have likewise been mine. Having actually tried or been closely associated with every malpractice case that has been tried in our courts during that time, I have become known as "the doctor's friend," a compliment which is very pleasing to me.

While I have enjoyed my law practice and my association with my brother attorneys and while I derive a great deal of satisfaction out of my work on the bench, my heart has been and is tilted towards the medical and dental professions of the state of Kentucky.

The subject you have chosen for me today is "The Doctor's Day in Court." You may get in court in any one of three different ways. You may appear voluntarily, but that is never advisable as respects any witness, because it will show too much interest on the part of the witness. Another way is by a regular subpoena, such as is used for any witness. This method is seldom used for physicians, because if the witness, for any reason, fails to appear, a continuance cannot be had as a matter of right. The third method, which is the usual and most effective one, is by order of court, based on the necessary affidavit and statement, for the physician's personal appearance and oral examination in court.

Three Methods of Testifying

Physicians prefer to testify by depositions, which are usually taken in their offices. Lawyers had rather physicians testify orally, because it is believed they make better witnesses and a better impression when they testify orally. Whether you testify orally or by deposition, the law allows you the munificent sum of one dollar per day for your time. If you are called to testify for the plaintiff, you may be paid nothing, much depending on

whether a judgment is obtained and collected, and, even then, some lawyers—not many—forget to pay the physician.

Concerning Fees

You should have a prior understanding concerning the amount of your charge for court work; otherwise, your legal fee will be the statutory one. The amount of your charge depends upon many factors, such as whether you are called as an ordinary or as an expert witness, the time consumed, your training, your professional skill, and your standing in the community. Experts usually receive higher compensation because pre-trial conferences and research are generally involved. The attorney calling you, although he makes all arrangements for your court attendance, does not thereby become personally liable for your bill. You must look to his client alone, unless the attorney assumes personal responsibility. If you are acting for a corporate defendant, you usually get paid without question; but, in any case, I suggest the wisdom of medical witnesses having the necessary understanding about their charges in advance. You will have to use your own judgment as to the advisability of having the attorney for whose client you serve to personally guarantee the payment of your bill.

In order to conserve the time of physicians, it has always been my practice to phone the witness some thirty minutes before he is to go on the stand and to arrange for him to testify as soon as he reaches the courthouse. Most lawyers do the same thing. While attorneys who represent plaintiffs routinely accept employment on a contingent basis, that is a certain amount or percentage if you win, nothing if you lose, physicians cannot ethically do that. Your fees are fixed and are due regardless of the outcome of the litigation.

Expert or Ordinary Witness

You will be called upon to testify either as an ordinary witness or as an expert. I have been asked time and time again to say where is the dividing line between an ordinary and an expert witness.

That question is important because it not only affects your testimony, but because an expert witness can reasonably be expected to receive a higher fee.

This is the distinction as clearly as I can give it: As an ordinary witness, you testify to facts that have come under your personal observation, such as the nature and extent of the injuries. As an expert witness, you interpret the facts in the light of your knowledge and experience, giving an opinion based either upon such facts as are known to you or submitted to you hypothetically. In litigation involving instruments of writing, if you have examined the person who signed the instrument, and are called upon to testify as to his sanity when he signed, you are an ordinary witness; but, if you have not examined him and are asked for an opinion based upon certain assumed facts, you then become an expert.

It is easy to see that you may be called in court in each of these relationships to discharge the functions of both an ordinary witness and of an expert in the same case. Exactly where the point of transition lies between an ordinary and an expert witness is sometimes difficult to ascertain. Many cases are on the border line. For instance, you see A strike B and knock him down, and you attend B and find that he has certain physical ailments from which he presently dies. What you saw and found on physical examination and your opinion of the cause of death may well be considered, though debatable as to the opinion, as coming within the ordinary observation of a medical man; but, not having seen the difficulty and not having examined the injured, when you are called upon under oath to interpret the medical data and to throw light from your medical experience and, upon medical and other facts, to give an opinion as to the cause of death, you are an expert. The dividing line is the distinction between observation and interpretation.

Qualities of a Successful Witness

All physicians desire to be good witnesses. Having that thought in mind, I shall now summarize some of the qualities of a successful medical witness. First, the faculty of accurately observing all things about you and of making full notes of what you see. This applies to ordinary witnesses. Second, a retentive memory. Third, courtesy to both bench and bar.

Fourth, sincerity, candor, and an unprejudiced mind. Fifth, a well-balanced temper that will remain unmoved, however great the provocation. Sixth, the gift to express tersely and intelligently what is in your mind. The last five qualities are applicable to every witness.

Value of Records

The value of notes cannot be overemphasized. It is necessary for the physician to bear in mind that one of the most important aids to a medical witness lies in the notes taken on the spot at the time or immediately afterwards in cases likely to come into court. The habit of detailed observation, the careful taking of notes of the hour, day, and month and of the fullest details is of no less importance than the making of office records and should be cultivated. If the notes cannot be taken at the time of the occurrence to which they refer, write them as soon as possible afterwards; for they lose their value in proportion to their remoteness. Save the original notes. In this way, any errors in the process of copying may be avoided, as these first drafts may serve as special reminders of the time and circumstances under which they were made. Full and complete office records are important not only for your later use as a medical witness, but they might come in handy in a later malpractice case, especially if your patient is an infant; for while an adult's claim for damages is barred by limitation within a year from the rendition of the service, one under twenty-one years of age may bring an action against you for damages at any time within a year after attaining the age of twenty-one years. Unless you make such records, especially office records, and preserve them, you may have to depend upon your memory in defending a malpractice suit years later. Your office records will be accepted far more than your memory of the treatment given. Then again, such records are important because, while you will not be allowed to read them verbatim to the jury, it is permissible for you to refresh your recollection by referring to them.

Value of Courteous Treatment

The subjects of courtesy, sincerity, candor, temper, fairness, and lack of prejudice are so closely related and interwoven that I shall discuss them together. Having been called from your busy office and from the field of your labors, some-

times without compensation, to tell the truth, the whole truth, and nothing but the truth, you are entitled to and should be accorded civil and courteous treatment by both bench and bar. I am happy to say that you always find the Court, and usually the lawyers, courteous and considerate, but, naturally, lawyers will take advantage of any opening if you lay down the bars. While such consideration is due you, there is a corresponding duty on your part to display these qualities to both bench and bar.

Dr. Irvin Abell Ideal Witness

The late Dr. Irvin Abell displayed all of these traits to a marked degree and was therefore one of the best witnesses I have ever known. He disliked to appear in court; yet, in the interest of justice and fair play, he would do so. Once after testifying in an important malpractice case in the federal court, he made, as he left the stand, a low bow to the Court and to the jury. He had made a splendid witness. When the jury brought in a verdict for the defendant, although strong defensive facts were on our side, I could not help from believing that his courtesy, his winning personality, his sincerity, his humility, and his rugged honesty had much to do with the jury bringing in a verdict for the defendant.

An Ill-tempered Witness

Under no circumstances should you lose your temper. Most doctors hold their tempers. An ill-tempered witness at once becomes a bad witness, and the just and proper effect of his testimony is weakened, if not destroyed. I once lost an important malpractice suit because my client lost his temper and "blew his top" under cross examination. True, the Court gave me a new trial, and the judgment was never paid because, fearful that my friend would get mad and lose his head on the second trial, I compromised the case on a nominal basis. So, my friends, do not make the serious mistake of being discourteous or becoming angry on the witness stand, however great the provocation. If you are vulnerable, your questioner will know it, and will be within his rights to undertake to confuse and rattle you in the hope that he can thereby impair your testimony by bringing about ill temper or discourtesy on your part. Such an effort may be made by opposing counsel in any one or more of several different ways.

If you have testified in the case before, an astute lawyer, with your written testimony before him, might attempt to contradict and confuse you by pointing out certain apparent discrepancies between your then testimony and that given by you on a former occasion, maybe months or even years before. You should prepare for this in advance by reading and thoroughly familiarizing yourself with your former testimony.

Hypothetical Questions

You might be confused unintentionally perhaps by the contents or length of hypothetical questions propounded to you. A hypothetical question as you know, is one propounded to a witness detailing what the questioner claims are the proven facts in the case, and requesting you, assuming those facts are true, to give an opinion as to the probable result of those facts or their effect upon the subject under investigation. Incidentally, in the trial of Harry Thaw for the killing of Sanford White the district attorney propounded such a question containing fifteen thousand words to six different experts on insanity. There is a record of a still longer hypothetical question. It was propounded to Dr. Jelley, a Boston expert on insanity, during the trial of the Tuckerman will case, where the only issue was the mental condition of the testator at the time the will was made. This question containing twenty thousand words, is regarded as the longest question ever asked in a court of law. The answer comprised just three words, "I don't know."

My friends, if you do not understand the question, do not answer until you do understand it. You have the perfect right to ask that it be repeated. If you are uncertain what your answer should be, say, "I do not know." If you answer a question without understanding it, or if you guess at the answer, you might get yourself into a lot of trouble.

Medical Books Not Admissible

Opposing counsel might attempt to discredit and contradict you, under cross examination, by producing medical books the teachings of which do not support your opinion. Such works are not admissible under direct examination for various reasons, chief of which are: the authors were not under oath when they were written; they cannot be cross examined, a right opposing counsel always

has; such works are hearsay evidence; and, as medicine is not an exact science, books on scientific knowledge must necessarily be based on data which each successive year may correct and expand, so what is written as true this year may be doubted next year and rejected entirely the following year; hence, medical works are not legal evidence. However medical books may be used on cross examination for the purpose of showing, if such be the case, that they do not support your opinion and to test your knowledge and information.

Questions Regarding an Authority

On cross examination, astute counsel will sometimes ask you if you regard so and so as an authority, for instance, on the subject of surgery. If your answer is in the affirmative and if said authority does not support your testimony, he will be allowed to read from the very authority whom you, yourself, have vouched for, statements that tend to contradict you, and an attempt will thus be made to discredit you. I have found that some physicians are inclined to vouch for a so-called authority without being thoroughly familiar with its teachings. Do not make that mistake. I heard a case where a physician was asked whether he recognized Blackstone as an authority on surgery. "Yes, indeed," replied the witness. The lawyer then produced Blackstone, a legal treatise, not a medical book at all, to the great embarrassment of the witness. A Chicago surgeon of international reputation was being examined by a very skillful attorney. "You recognize Agnew was an authority on surgery, do you not, Doctor?" the lawyer inquired. "No Sir," was the curt reply. Then he referred to another well-known writer on surgery and repeated his question to the witness about that book. He received the same negative reply. The answer was then repeated to several other similar questions. "Will you please tell me, then, Doctor, whom do you consider an authority on surgery?" "I am in this particular case at least. I examined this case, and I know about it, while these other authorities you mentioned are speaking in generalities." The doctor was correct. No two cases are ever precisely alike, and the surgeon who personally examines and studies the case is a better authority than any surgeon who is writing about cases in general, especially since medical opinions may change

from year to year. The physician's answer to that question together with the "I don't know" answer of the expert in the Tuckerman will case, referred to above, constitute a pattern for doctors to follow under similar circumstances.

Insanity Cases

Witnesses, especially experts in insanity cases, disagree, and when you find them divided, one group saying yes, the other saying no, the public is inclined to believe that they serve those who get to them first. This concept, while probably justified in some cases and in connection with a few individuals, is not true as a rule. There will always be disagreement between honest witnesses, regardless of their trade or profession. Even the members of the Supreme Court of the United States frequently show precisely the same ratio of disagreement in their decisions; yet there has never been any suspicion that the judges have been bought off.

Importance of Being Sincere

The importance of the witness being truthful, modest, sincere, candid, even tempered, and free from bias cannot be overestimated. Most of these qualities are the inherent and valuable possessions of many fortunate individuals. All of them may be acquired. Their display will win friends and confidence. The last quality to which I refer is as important as any I have discussed.

Importance of Plain Language

It is the gift to express one's self plainly, tersely, and in understandable language. Having first understood the question, give a plain and direct answer. Look straight at the jury. My elocution teacher at the University of Michigan used to say to our class, "Whenever you speak to a jury or to a crowd, do not look at the floor or over the heads or at the side of your listeners, but look straight into their eyes. That is just as important as looking a man in the eye when you speak to him." He called that "directness," and assured us it was necessary if we wanted to make the best impression. Never allow your eyes to wander from the eyes of the jury. Speak in plain and understandable language. All technical terms should be translated into plain English to suit the comprehension of the simplest auditor. I once asked a physician how he arrived at the hospital. He replied, "I arrived ambulatory." I

know the jury didn't understand him. How much better would it have been had he said, "I walked." If you mean "skull," you should say so and not "cranium." If you speak of the belly, say "belly" and not "abdomen." You should refer to a blood clot as a "blood clot" and not as an "apoplectic extravasation." When you talk about a bruise, call it a "bruise" and not a "contusion," and so on down the line. When a horse doctor used the words "suspensory ligament," a juror asked him if he meant "hangman's noose." Horse doctors are not the only ones who sin. Save the long words for medical meetings, where they will be understood, and avoid the charge of affection and pedantry, if not ignorance, by talking so that you will be understood.

Answer all questions directly and plainly without ambiguity or evasion. He who says, "I think," or "My impression is," or makes qualified statements, except when justified, will soon find himself in difficulty and open to the imputation that he belongs to the guessing profession.

Privileged Communication

A number of physicians have asked me through the years whether the giving of their testimony without their patient's consent would subject them to liability, and I know you are interested in the answer. The legislature in some states has seen fit to seal the doctor's lips in certain cases so that he is not allowed, except with the consent of the patient, to give testimony concerning any communication had with them in a professional capacity, nor is he allowed to give testimony concerning their ailments, diagnosis, advice, or treatment, such being regarded as sacred.

This is not the law in Kentucky. Lawyers and clergymen are prohibited from disclosing professional communications; but that privilege does not extend to physicians.

Section 606 of our Code of Practice is as follows:

"No attorney shall testify concerning any communication made to him in his professional character by any client, or his advice thereon, without his client's consent; nor shall a clergyman or priest testify concerning any confession made to him in his professional character in the course of discipline enjoined by the church to which he belongs without the consent of the person confessing."

Thus, while this section throws the mantle of privilege around attorneys and preachers, it does not include physicians. Therefore, as we have no statute in Kentucky making such communication privileged relating to physicians, they may be required to testify concerning such matters.

Exceptions

There is one exception. Under Section 213.200 of our Statutes, which deals with vital statistics, births, and deaths, confidential relations and communications between the physician and his patient are placed upon the same footing as those between attorney and client, priest and parishioner, and are therefore privileged. Said section goes so far, but no further, and is limited solely to relationships having to do with births and deaths.

Some years ago a person whom we shall call "A" filed suit for an alleged injury to his eye sustained in an automobile accident. During the course of the litigation, the defendant discovered that A had previously been treated by a local specialist for a diseased condition of this same eye. The specialist was interviewed and later appeared in court and gave testimony, without the consent of his patient, that the then condition of his eye was due, not to trauma, but to disease, trachoma. Obviously, A lost his case. He then sued the physician for \$10,000 in damages for embarrassment and loss on the theory that all communications between him and his doctor were privileged and his physician had violated the trust reposed in him. The Court of Appeals, in rejecting the plea, among other things, said, "Communications between the physician and his patient are not privileged in Kentucky, except under the statute applicable to the Bureau of Vital Statistics."

I think it entirely unnecessary for me to suggest this does not mean that you physicians have the right, ethically, to broadcast the ailments of your patients or the treatment given them by you or the advice given by you to them. If you did, you would not and should not remain in active practice very long, but except upon a matter coming within the purview of the Board of Vital Statistics you will have to testify concerning such matters if subpoenaed. Even so, the best thing is first to tell your patient about your requested testimony and get his or her consent if possible.

Loyalty to Fellow Practitioners

I should like to discuss for a moment a subject not directly connected with the one assigned me, but which is of most importance to the medical profession, which is your loyalty to one another. You should not criticize the professional work of a brother physician until and unless you are cognizant of all the facts. After all, he practiced the case and understood it better than you. Under the circumstances he might have practiced it correctly and properly, using a technique perhaps different from yours, yet recognized as standard by a different school of thought. So be slow to criticize. Never go so far as to say that you would never testify against a brother physician, regardless of the facts. There recently came to my attention a malpractice claim, with debatable merit, wherein the succeeding physician reportedly said this to his patient, "If you call me to court, not only will I withdraw as your physician, but I will testify against you. I would not testify against any physician." Can not you plainly see that this physician was doing his patient and his fellow physician a gross disservice? Not only did it indicate lack of loyalty to his patient, but it evidenced bias and prejudice in favor of the other doctor, to the extent that it smacked of untruthful-

ness. Such statements, if proven, will rise up, as they should, to destroy your testimony and to plague you.

Discourage Litigation

Make an honest effort to protect your brother physician by discouraging litigation if you believe the claim is without merit. If you feel the claim is just, use your influence to bring about an equitable out-of-court settlement, but never, under any circumstances, make the bold, bald statement that you will not testify against any doctor regardless of the facts. Rather say this, "I do not like to go to court in any case, but, if I have to go, I will tell the truth, whomever it helps or hurts."

I sincerely hope that these suggestions will prove valuable to you when you take your place on the witness stand. I am humble as I stand before you members of the Kentucky Medical Association, men and women who have sought to follow the Divine Being in bringing about health to the sick and instilling hope in the hearts of a suffering mankind. I am proud of my close association with you and of the knowledge that your confidence has been mine these many years. I salute you, my friends, and in the words of the poet, "May divine blessings be showered upon you now and in all your years that lie ahead."

Complications of Biliary Tract Surgery

J. DUFFY HANCOCK, B.S., M.D., F.A.C.S.

Louisville

As the pendulum continues to swing towards the surgical treatment of cholecystic disease gall-bladder surgery becomes increasingly more common and now probably ranks third in frequency to appendectomies and herniorrhaphies. This increased incidence of biliary tract operations means more cases for the individual surgeon and a broadening base of surgeons who will attempt to do this type of work. No other branch of surgery requires more experience or judgement. Those who lack these qualifications should not attempt such procedures since the complications can be so disastrous. Even those who are qualified can well bear in mind that eternal vigilance is the price of safety.

Safety Factors Considered

This presentation offers nothing startling or original. However, since repetition is a well recognized teaching procedure for fixing ideas in one's mind, it would seem proper to emphasize certain safety factors to be considered in biliary tract surgery and to discuss and initiate discussion of the complications most frequently encountered. The source for most of the opinions expressed is a series of nearly 300 consecutive private cases operated upon for some type of biliary tract surgery between September 1, 1945 and May 15, 1952.

While most complications, or at least the most dramatic ones, are those occurring at operation, there are pre and post-

Read before the Kentucky Surgical Society, 1952, Annual Meeting, French Lick Springs Hotel, French Lick, Indiana, May 24, 1952.

operative difficulties that should be considered.

Pre-operative Complications Due to Delay

Most pre-operative complications are due to delay. Silent so-called innocent gall-stones are watched until acute cholecystitis develops. Acute cholecystitis is watched until gangrene, perforation or abscess occur. Suspected biliary dyskinesia is watched until non-opaque stones or contracted or kinked cystic ducts produce aggravated symptoms. The strawberry type of gall-bladder is watched until it markedly impairs the patient's general health. Jaundice is watched until cholemia or malignancy attain serious proportions.

Role of Symptomless Gall Stones

While it is true that many symptomless gall-stones are found at abdominal exploration and autopsy, it is equally true that nearly every catastrophic illness of the right upper quadrant is found to be associated with the presence of gall stones. The possibilities of acute cholecystitis, pancreatitis and malignancy outweigh the dangers of an interval cholecystectomy. This procedure is advocated unless there are definite contra-indications. Even if nothing else is accomplished, there will, at any rate, be no gall-bladder remaining to become the site of a carcinoma. In our series there were three cases of inoperable malignancy in all of which the presence of stones was demonstrated at operation.

Acute Cholecystitis

Probably the most characteristic and dangerous thing about acute cholecystitis is the fact that its clinical symptoms are so often less pronounced than the pathological changes taking place. This is the prime reason for early surgery in these cases. The water dissection caused by the initial edema distinctly lessens the technical difficulty of the procedure. The post-operative convalescence is often amazingly smooth and gangrene and perforation are avoided. There was only one death in 28 cases.

Biliary Dyskinesia

Biliary dyskinesia is an awe-inspiring word for functional disorder of the biliary ducts and gall-bladder without organic change. Many conscientious surgeons hesitate to do gall-bladder surgery on clinical symptoms alone. While it is true that

modern cholecystography is most efficient, it has been my experience that non-demonstrable stones are more frequent than most roentgenologists will admit. I feel too, that there is some importance to delayed or incomplete emptying even though the gall-bladder does fill and visualize well. On more than one occasion I have been able to demonstrate a cystic duct of tiny caliber or one definitely twisted or kinked with symptomatic relief following cholecystectomy. In other instances, functional disorder may result from paralysis of the sphincter of Oddi spasm of that muscle because of disturbed intraductal pressure of the absence of concentrated gall-bladder bile. These latter conditions are difficult to diagnose and differentiation must be made from peptic ulcer, pancreatitis, appendicitis and other intra-abdominal diseases. Many of these patients are chronic invalids. If, after careful diagnostic study and adequate medical treatment, the symptoms are not relieved, I feel that surgical exploration is indicated. It has been reported that approximately a third will show definite improvement. This observation coupled with the fact that it is rare for the symptoms to become aggravated by surgical treatment, gives support to such intervention. Those who follow that plan, and their referring physicians, will, it is true, have some disappointing results to contend with but I feel that the salvage of even a small number justifies the procedure. It is certainly my personal conviction that at least there should be a more liberal interpretation of cholecystograms.

Strawberry Type

The strawberry type of gall-bladder will often mimic gall-stone colic. Fear of such attacks will discourage eating, weight loss may be appreciable and impairment of general health considerable. If colics and symptoms persist in spite of medical treatment then, again, exploration would seem to be in order.

The etiological differentiation of chronic or recurrent jaundice can be an absorbing study, but one's diagnostic enthusiasm should not lead to undue delay in surgical exploration if the cause remains obscure, or seems to be obstructive in nature.

Postoperative Complications

Postoperative complications include first, the usual ones of any type of major abdominal surgery. In our series there

was one death from embolism, one from pulmonary infarction and edema, one from myocardial failure in a quite elderly woman and one from pancreatitis with glycosuria. In addition, there are complications associated with the disease itself or sequellae of its surgical correction.

The ligature on the cystic duct may slip, but if adequate drainage was established at the time of the operation biliary peritonitis will be insignificant and the sinus will close in time.

Secondary hemorrhage is rare especially if the cystic artery is ligated independently of the duct. Stone formation may occur in the stump of the cystic duct if that structure is too long. We have seen one such case. Adhesions, especially those involving the pylorus, are fairly frequent. Suture of the gall-bladder bed and placing omentum at the underside of the liver will minimize this complication. Then there may be stones, old ones that escaped detection or newly formed ones. So-called liver deaths are rather rare now with the better understanding of liver functions, the importance of adequate glucose intake and the necessity of proper pre-operative preparation.

Complications During Operation

The tragic complications are those occurring during the operation. These include particularly duct injury, hemorrhage with or without duct injury, undemonstrated accessory ducts, etc.

Some are inevitable. Many can be avoided by excellent exposure, constant alertness and adequate anatomical knowledge of the many variations which may be encountered. Possible anomalies are quite numerous.

Satisfactory exposure may be obtained through any of the conventional types of incision. While better general exploration may probably be accomplished through a perpendicular incision, I believe closure is easier, quicker, and more secure through a transverse or oblique right subcostal approach. My preference is for the latter since it seems to make the appendix more accessible.

Operative Technique

After the pylorus, pancreas and common duct have been surveyed, the stomach and transverse colon can be packed away to give a good exposure. If the liver seems to be wedged down, it may be made more

mobile if the surgeon passes his hand over the dome of the liver and allows entrance of air between it and the diaphragm.

Clamping the cystic duct and artery en-masse should never be done. Hemorrhage and duct damage may too easily occur. The areolar tissue overlying the region of the junction of the cystic and common ducts should be gently nicked and the tissue wiped away so that those two duct structures can be positively identified. While it may be that too thorough exposure of the common duct may interfere with its blood supply and result in necrosis and cicatrization, it is not necessary to secure such wide exposure. After the cystic duct is well exposed, the cystic artery can usually be found without much difficulty. If one wishes to clamp and cut before ligating, the cystic artery, being more friable, should be attacked first. This is important because the artery might be damaged during manipulation of the duct. I have found it safer to doubly ligate the cystic artery and the cystic duct individually. The artery and duct can then be clamped and cut between the clamps and adjacent ligature. This procedure will allow a final inspection of the structures before cutting and if the common duct has been inadvertently ligated, as happened in one of our cases, the ligature can be released without the sequellae that would follow section of the common duct. Regardless of which of these two plans is followed, it is not safe to ligate the cystic duct and artery with the same ligature. The more elastic artery may retract from the ligature and hemorrhage result. After the cystic artery and duct have been ligated and cut, the gall-bladder can be removed from below upward with little difficulty. In cases where good exposure is obtained and the structures ligated as described, duct damage will seldom occur. In the one case of mine where it did happen, I had been satisfied with somewhat inadequate exposure and identification of the duct junction. Any recognizable duct damage should be immediately repaired and by end-to-end anastomosis if at all possible. Accessory ducts may rarely be present. In most cases where there is post-operative biliary drainage, the explanation probably lies in the presence of minute channels from the liver to the gall-bladder bed.

Hemorrhage

Hemorrhage is a two-fold source of danger. Blood loss may be considerable and welling-up blood may obscure the opera-

tive field to such an extent that blind attempts to grasp the bleeding vessel may do serious duct damage. The well known maneuver of grasping the vessels at the edge of the foramen of Winslow will usually result in a field that can be sponged dry. Identification of the vessel is then much easier. If the bleeding stump is very short or friable and ligatures cut through, one should not follow the vessel too far but instead, while there is still a stump available, should clamp it carefully and allow the clamp to remain applied for several days. This was necessary in one of our cases. Such a clamp can be removed subsequently as indicated.

Surgery During Acute Cholecystitis

In acute cholecystitis if one operates upon the case early, the edema should be soft and induration about the junction of the cystic and common ducts not pronounced enough to interfere with proper visualization and routine procedure. A little later identification of structures may be more difficult. It is then that the method of removing the gall-bladder from above downwards has its greatest usefulness. Frequently, cases which at first appear impossible will lend themselves very satisfactorily to cholecystectomy.

Cholecystostomy

Cholecystostomy is not a desirable operation in either acute or chronic cholecystitis and is seldom necessary. Draining a diseased gall-bladder or removing stones from it corrects the result but not the cause of the disease and the complication of recurrence is to be anticipated since the site and cause remain. The high mortality of this procedure is often excused upon the grounds that it is reserved for the most desperate cases. This may be true. However, to arrive at the fair mortality (and morbidity) of cholecystostomy, one should include the disability and mortality of the subsequent cholecystectomy which will probably be required. Occasionally, the patient's poor general condition or pronounced local pathological changes such as abscess formation will necessitate the relatively simpler cholecystostomy. If such a procedure is employed, one should make every effort to relieve the cause of the obstruction, usually a stone lodged in the cystic duct.

Exploration Technic

Exploration of the common duct is another debatable topic with potentialities for complications. In review of large series

of cases, it is frequently stated that 15 to 17% of cases having stones in the gall-bladder will also have them in the common duct. Perhaps my series is too small or perhaps I have overlooked some common duct stones. At any rate, I have encountered only about one-half of such a high percentage and my follow-up study has not led me to believe that many were overlooked. For that reason I do not employ routine exploration of the common duct except by palpation. This hesitancy is based upon the premise that choledochostomy is not a simple harmless procedure. The complication of a cicatricial contraction afterwards is always a possibility. Accordingly, choledochostomy is done only where stones are palpated in the common duct, where the duct is definitely enlarged or where there is an obstructive jaundice or history of it. If the common duct is to be explored, it should be done before cholecystectomy. The gall-bladder is an excellent guide and gentle tractor and then, too, it may be needed for anastomosis to the intestinal tract if short-circuiting is required.

Dilatation of the sphincter of Oddi is another procedure not without complications. Where indicated in obstruction, the use of a catheter has seemed safer than dilatation with probes.

While an ideal cholecystectomy, one without drainage, is a tempting procedure in many instances, I feel that routine drainage will avoid complications ranging from mild biliary irritation to serious biliary peritonitis. The ligature on the cystic duct can slip, accessory ducts may be overlooked and tiny bile tracts at the gall-bladder bed can ooze. If the drain is brought out through a lateral or inferior stab wound, the integrity of the operative incision will not be impaired.

Anesthetic Complications

I have purposely deferred consideration of anesthetic complications to the last. In not a single instance have I felt that anesthesia contributed to my mortality and most rarely has it affected morbidity. This may be explained by the fact that in my community we have many excellent anesthesiologists available. I have never cared for spinal anesthesia in upper abdominal surgery. However, in the relatively few cases where it was employed, it was entirely satisfactory. While I realize that many surgeons dislike a multiplicity of anesthetic agents, I have found

(Continued on page 38)

SPECIAL ARTICLES

Which Direction?

CLARK BAILEY, M. D.

Harlan

During the 18th Century, the German poet Goethe wrote, "I find the great thing in this world is, not so much where we stand, as in what direction we are moving." Later, our own Oliver Wendell Holmes said, "I find the great thing is not so much where we stand but in what direction we are moving. To reach the port of Heaven, we must sail sometimes with the wind and sometimes against it; but we must sail and not drift, nor lie at anchor."

We are told by some that this is a year of decision in the life of our nation in determining the direction in which we are moving. As a matter of fact, every year is a year of decision. We may at any time or any year move in the wrong direction.

Confusion as to Direction

Many years ago while driving along an unpaved, poorly marked highway in one of our states, I began to suspect that I was going in the wrong direction. After quite a period of time I saw a man working by the side of the road. I stopped and asked him "Where does the road lead?" He replied, "Boss, this heah am the highway." Just as I was then confused as to direction, we are now as a nation, in a period of confusion as to direction. Yet, this is another year of decision.

Many nations of the past achieved greatness through force and soon declined because they were confused as to direction. History reveals that nations decline when government begins to provide for its people and does not allow the people to provide for themselves. "It is very patient of history to keep repeating itself, considering that we never listen."

Loss of Vision

Provision for its people by a government apparently produces in its citizens

a loss of ideals, a loss of vision, a retardation of aspiration. Aspiration is life's universal law. It is a language divine which says, "Where there is no vision the people perish." The hope of this world has always been fashioned into some vision of what ought to be and may be; and the individual, profession, or nation unstimulated by such vision is speedily hastening into decline.

Every human invention was first a thought in some mind. What are the vast volumes of literature but the fastening upon the printed page the vision of some thinker's mind? What are inventions and factories and institutions but the incarnation of ideals? What is this wondrous whirling planet, adorned with flowers, harvests, and mountains, but the material embodiment of the thoughts of God?

Ideals of Nations

Nations, as well as individuals, are fashioned by their ideals. When the ideal of Sparta was grace and symmetry of the body, then she produced the most splendid physique that has ever graced the earth. When her ideal fell to that of mere brute force, then her civilization was "red with the fierce fire of animal passion." When the ideal of Athens was philosophy, then there was produced her Socrates, Plato, and Aristotle. When the ideal of France was glory, then "glory sat with the eagles on her victorious banners." But when her ideal was agnosticism, anarchy took the place of government; patriots were exiled and murdered; scholars were proscribed and banished; licentiousness held high carnival in her first homes and lovely womanhood was degraded and despised. The ideal of empire and commerce made little England "the mistress of the seas," the ruler of vast and varied populations, the banking house and workshop of the world. It is interesting to note that in our own time we can observe that when England began to provide for her citizens

Presidential Address delivered at the Annual Dinner of the Kentucky State Medical Association, Louisville, October, 7-9, 1952.

and suppressed in her people the ideal of individual responsibility and freedom of action, she speedily began the same historical decline of great nations that had preceded her. (1)

In our own country, less than two hundred years ago, representatives of American colonists called into existence a nation, conceived in an idea. That idea found expression in the "inalienable rights of life, liberty, and the pursuit of happiness" which are proclaimed in the Declaration of Independence. As is further elaborated in the Constitution, the American idea began to shape a society committed to the proposition of maximum individual liberty under law, a government of limited and specified powers, an opportunity for every American citizen to go as far as his ability and industry would carry him, without regard for class or social distinction.

Our Ideals

But what is essential and enduring about America is not the material achievements, but the idea of liberty and individual opportunity, without which these achievements would not have been possible. This idea has faced three great tests. First, the forces of monarchy and feudalism which were successfully overcome. Our nation was a witness and an example to the other nations of the world of what a small force of free people could do. Our second great test was an internal war which was fought to decide the existence of our Union. Although we were greatly weakened, we survived the test and did not deviate from the direction which made our nation great. Now the third test, probably bigger and more complex, is the test of competition with the leviathan state, with the theory that the state governs best which governs most and with the fewest checks and balances.

American and Soviet Constitutions Contrasted

In studying the American and Soviet Constitutions, it is interesting to observe how the American Constitution imposes one "Don't" after another on the state, while the Soviet Constitution is framed upon the assumption that the state is the source of all the benefits. The American idea, if it is properly understood and kept inviolate by Americans, is well able to face the challenge of the new idolatry of the state. A major problem of the United

States is to restrict the inflow of illegal immigrants. In the Iron Curtain countries, the problem is to stop the outflow of all illegal emigrants. In this simple, indisputable fact one may read with confidence the judgments of history on the competition between a system where the state owns the people and the people own the state.

What ideal and what idea have contributed to the great progress of our young nation? Why did it happen here instead of some other part of the world? The Indians had lived here for hundreds of years. Life was short and hard and Mother Nature was a stingy provider. And then was brought to this country the idea of freedom, of personal liberty, of the ownership of property, incorporated into the ideals of a government existing only to serve the people. The result was the greatest explosion in human history of effort, of progress, of voluntary cooperation between free men. Our forefathers did not come to this continent to get a government to provide for them. No. That is what they had where they came from. They came here to get a chance to provide for themselves. As a result of that philosophy in their hearts and of their political concepts, they built a society which released, as has never been done before in any time, in any place, creative capacities that are in ordinary people everywhere.

Unprecedented Progress

There took place here the greatest outburst of creative effort, imagination, energy, production, and progress that the world has ever seen. It rushed ahead to the point where today the seven per cent of the people of the world who live here in these United States have created as much wealth and have distributed it more widely than all the other ninety-three per cent put together. It did not happen because of some good fortune or chance, or our superior ability, or of great resources. The basic reason was an economic system based primarily on the right of the individual, an opportunity for him to get ahead. That is what young people especially want, a chance to get ahead. (2)

Bill of Rights

The invention of the steam engine, a result of the dreams and vision of one man, together with other inventions, produced mechanical slaves which our free people exploited and developed to the

point where today the majority of all labor in America is by machinery. While the machinery contributed greatly to our progress, the idea of personal freedom and protection of private property made the machinery possible. If we lose the idea which made our progress possible, then we shall soon lose the tools and the incentive whereby we may work. The secret of our progress came from a religious faith, which puts first the dignity and worth of individual man as a spiritual being. If you read the Bill of Rights, you will find that not one of them is a guarantee that our government must do this or that for the citizen. Every last one of them is a guarantee that our government cannot do that or this to the citizen. That is what rights are, what a government cannot do. (2)

In the Preamble to the Constitution of the United States there are six separate objectives. The first five, to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, can be and for the most part have been paternalistically provided for the people who do not require the complicated system of representative government laid down for the Republic. The sixth objective, the blessings of liberty, can be realized only as they are consolidated by that people and they depend for their realization, as the other aims do not, on the character of the people, blessings of liberty secured only by a definite division between the federal government and the state. One secures that which may become lost, or which may escape, or which may permit invasion or intrusion.

Interpretation of Freedom

Freedom is a noun descriptive of status or condition. Ability to reason is not implied. Any of the lower animals may have freedom but not liberty. Lord Bryon wrote, "Eternal Spirit of the chainless mind! Brightest in dungeons, Liberty, thou art." While The Prisoner of Chillon was not free, it could still be said by the poet that he enjoyed liberty; as the "eternal spirit of the chainless mind." The freedom of choice undoubtedly places its possessor "at liberty." But to reach the essence of liberty and certainly to secure its blessings in cooperative living, the choice must be exercised in conformity with moral principles. One hundred years ago, Daniel Webster said, "Liberty exists in propor-

tion to wholesome restraint; the more restraint on others to keep off from us, the more liberty we have." When the founders spoke of the blessings of liberty they did not discount the value of freedom. The word, liberty, conveys a sense of individual responsibility which the alternative noun, freedom, does not imply. The blessings of freedom may be of questionable value. Those of liberty, properly understood, are priceless. (3) I quote from the Bible in regard to this thought, "Where the spirit of the Lord is, there is Liberty."

Medical Leadership

Our profession of medicine has attained a greatness never before equaled in the history of the world. This has been accomplished in a nation that has followed the direction of appreciating the freedom of the individual and its respect and protection for private property. The unhampered ability to dream and work and provide for self and fellow man, unfolding the secrets of scientific facts, has contributed greatly to the progress of medicine. Today, we find ourselves as a profession at the peak of leadership in the world with other nations looking to us for guidance and continued leadership in our profession. In the same way, as a nation, we find the other nations of the world looking to us for guidance and leadership, willing to follow us if our dreams and our visions and our ideals will lift them up or inspire them.

Conflicting Ideology

Unfortunately, there are ignoble ideals in our incomparable country which forebode evil and threaten the well being and the permanency of our beloved nation. We are confronted with a conflicting ideology whereby the state notifies the citizen that he is no longer the architect of his fortunes, but an artisan under orders. His freedom to act for himself has been submerged under the state's formula for the general well being, its program of action. Here statism has reached full flower. Excessive faith in formula planning, pattern organization, can slowly transform a free society into a police state. The state openly and directly dictates to the citizen his occupation, the terms and the place of employment, the standard of his living, this in order to preserve the state-approved pattern of economic and social existence. Where statism

has only begun to take hold the state may use the more subtle, less easily recognized, instrument of taxation plus borrowing, if needed, in activating its own pattern of national development. Most of us have said, "It can't happen here." The fact is it must happen here or wherever a majority of the citizens accept the thesis that the state can do more than they can do for themselves. The state itself produces nothing. It can seize by more or less devious methods what its citizens produce and employ what it takes in the fulfillment of its adopted pattern.

Evils of Socialistic State

There comes a paralysis of power to everyone whose life is wedded to some narrow-minded, superficial ideal. All usurpations of power come under the color of emergency. The essence of free government is that it shall persist in being free, that it shall insist upon its democratic forms, and it will not suffer them to be set aside. The paternalistic care which our own government gives to the Indians of this country is a good example of the state providing sorry care for its people. The socialistic state confines and stagnates the human will. This nation did not grow great by trying to outguess tyrants and potentates. It grew because it had confidence in itself, because it had faith in the direction of life that it had evolved for itself. Its example has contributed to a better life for men everywhere. If that faith remains in the hearts and souls of Americans, they can forget the menace of foreign ideology. We are sure of one thing. The future of the United States and the future of an enlightened and advancing civilization throughout the rest of the world depend a great deal more on what this nation does and upon its own character than upon what our enemies do.

Evils of Socialism

Some of those in power in our own country seem to follow the doctrine that the individual is incapable of ordering his

affairs, of directing his work, and the government must have the power to do all this for him, to tell him how much he shall work, and for how much he shall buy and sell, and how much he shall reap from his fields. Other of these doctrines—call them socialism or the welfare state or what you will—come swirling on the tide from overseas. The embracing of these alien ideas is changing the character of our nation. It not only affects industry and labor, but it also seriously affects our honorable profession. It hampers the progress of our profession because the third party of government or any other group interferes with creative capacity and development. The ideology of socialism with its attending shackles, if adopted in this country, will be an albatross around the neck of our profession. We, as members of the medical profession, covet the right to continue the practice of medicine, as related both to our nation and our profession in a spirit of freedom and liberty, without restrictions, without domination, but with the privilege of co-operating with our fellow man and serving our fellow man. Doctors are first, citizens. That is their first responsibility, to uphold the hands of basic freedom and liberty. Their next duty, to progress as a profession second only to one. First, that his fellow man may be fully served and that this country may receive the benefit of his profession in a spirit of cooperative freedom and liberty.

Preservation of Our Ideals

Let us, as men of medicine, preserve those ideals which have contributed so much to our nation and our profession. Let us truly realize their importance and work and fight for their preservation and for their continuation. Let us remember, "the great thing in this world is, not so much where we stand, as in what direction we are moving."

BIBLIOGRAPHY

1. Inspiration of Ideals, Geo. W. Truett.
2. Which Way America, Walter H. Judd, M. D.
3. Power in the People, Felix Morley.

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

Raymond F. Dixon: - Associate Editor	L. H. South, M. D.: Book Review Editor
J. P. Sanford: - - - Managing Editor	J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.	George G. Greene, M. D.	T. O. Meredith, M. D.
Rufus C. Alley, M. D.	R. Arnold Griswold, M. D.	William R. Miner, M. D.
Everett H. Baker, M. D.	William P. Hall, M. D.	Frank H. Moore, M. D.
Sam H. Black, M. D.	Emmet F. Horine, M. D.	James E. Moore, M. D.
James W. Bruce, M. D.	E. W. Jackson, M. D.	George W. Pedigo, Jr., M. D.
John L. Dixon, M. D.	William O. Johnson, M. D.	Alvin C. Poweleit, M. D.
Samuel H. Flowers, M. D.	James M. Keeton, M. D.	Winston U. Rutledge, M. D.
Carl H. Fortune, M. D.	Coleman J. McDevitt, M. D.	William L. Woolfolk, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville.....	President-Elect
Charles B. Johnson, Russell.....	Vice-President
W. O. Johnson, 605 Brown Building, Louisville.....	Vice-President
G. Y. Graves, Bowling Green.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First DistrictJ. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1953
Second DistrictWalter L. O'Nan, 237 Second St., Henderson.....	1953
Third DistrictDelmas M. Clardy, Hopkinsville.....	1953
Fourth DistrictJ. I. Greenwell, New Haven.....	1953
Fifth DistrictRichard R. Slucher, Buechel.....	1954
Sixth DistrictL. O. Toomey, Bowling Green.....	1954
Seventh DistrictBranham B. Baughman, Frankfort.....	1953
Eighth DistrictEdward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth DistrictJ. R. Cummings, Flemingsburg.....	1953
Tenth DistrictJ. Farra Van Meter, 183 N. Upper Street, Lexington.....	1955
Eleventh DistrictHugh Mahaffey, Richmond.....	1953
Twelfth DistrictCarl Norfleet, Somerset.....	1953
Thirteenth DistrictClyde C. Sparks, Mayo Arcade, Ashland, Chairman.....	1953
Fourteenth DistrictPaul B. Hall, Paintsville.....	1953
Fifteenth DistrictEdward Wilson, Pineville.....	1954

EDITORIALS

POST GRADUATE EDUCATION PROBLEM APPROACHES AN ANSWER

"The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the state . . . with a view to the extension of medical knowledge and the advancement of medical science . . .," reads in part Article II of the Constitution of the Kentucky State Medical Association.

Acting under this mandate, the Council has continually sought to bring the latest and best in medical knowledge to the members of the association. In a state with a geographical make-up such as ours and with transportation what it is, the eternal bugaboo of bringing the post graduate instructor, or essayist, and the busy local practitioner together has been a problem that has confounded the officers. Either the physicians from medical centers would have to travel great distances and thus lose time from crowded schedules, or the local practitioner would have to travel to distant cities, causing inconvenience to his patients and himself. Both alternatives would involve expense and loss of time.

Many different approaches have been made to the problem. Some have enjoyed momentary success, but few have flourished to a degree that is desirable over any protracted period.

Our sister to the North, the Indiana State Medical Association, has wrestled with the problem for years. The I.S.M.A. officials looked longingly at both radio and television as media for broadcasting live medical programs to association members. In 1951 they decided to undertake a post graduate program of broadcasting live seminars over the telephone long-distance system. Enlisting the help of the Indiana University School of Medicine and the telephone company, the Hoosier physicians put together the first state medical association telephone seminar, which was a success from the start.

A year after Indiana introduced the program, the Council of K.S.M.A. voted to arrange a telephone seminar on a test basis. Last February, March, and April,

the first of such post graduate instructional programs were broadcast. They were presented under the direction of the Committee on Medical Education in co-operation with the School of Medicine of the University of Louisville. The university prepared manuals, and they were mailed to each member in the 28 subscribing county medical societies.

Because of the success of the 1952 venture, which was estimated to have the largest number of listening physicians ever to hear a medical program in this state, the Council has authorized a second series in 1953. To add vitality and effectiveness to the live broadcasts this year, ten slides will be prepared and mailed to each subscribing society. The slides, some in color, can be viewed by the local groups as the panel covers the related material. Manuals will be mailed again as last year to each member of subscribing societies.

This year, the Committee on Medical Education strongly urges you to hold discussions of the material presented immediately after these live broadcasts. It is felt such an undertaking would be very profitable. Discussion leaders are especially invited to attend the "dry run" sessions each panel holds in preparation for the broadcasts. The visitors to those sessions will carry home a new appreciation for the seminar broadcasts, because they will learn, as the panelists have, that it takes from three to four times as much preparation by the individual participant as it does to write a medical essay.

The savings in time and money resulting from the live telephone broadcasts of post graduate material are obvious. The average cost per member of a five-doctor county medical society for each evening last year, for example, was less than the fee for a local house call. To have traveled the necessary distance, most of the men who heard the programs would have spent anywhere from fifty dollars on up.

Our committee would like to express its appreciation to the University of Louis-

ville School of Medicine for its splendid co-operation in developing these programs, writing, processing, and mailing the manuals, and for preparing the slides you will enjoy this year. We would like also to thank the county medical societies for their generosity in working with us so

well. We are grateful, too, to the officials and technicians of the Southern Bell Telephone Company for their untiring efforts in making the program a success.

ROBERT LICH, JR., M. D.

Chairman, Committee on Medical Education

PHYSICIAN-NURSE RELATIONSHIP IN INDUSTRY

The proper function of nursing service in industrial health is a question often raised in medical groups. The legal and ethical limits of industrial nursing practice are identical to those imposed by the nurse's training and licensure and include the services under direct medical supervision that assist but make no diagnoses and define no treatment, and the services performed under indirect supervision through written standing orders.

These limits were set out in a joint statement of the American Association of Industrial Nurses, the Industrial Medical Association, and the Council on Industrial Health of the American Medical Association and published by the A.M.A. to clarify the physician-nurse relationship in industry.

All standing orders must be written and signed by a licensed physician and acknowledged by him as approved routine procedures. They must be written to a specific nurse under specific circumstances for minor conditions or for emer-

gency care or complicated circumstances prior to the physician's arrival.

Such restrictions apply principally to personal services. In the provision of safe and helpful working conditions and in general health counseling and education the nurse may exercise considerable initiative, guided practically by her training and experience and the availability of qualified consultants.

When necessary, it is her responsibility to acquaint her employer with the proper scope of limitations of her service and to consult the nearest official medical and nursing agencies when asked to exceed these limits.

It is strictly the function of the physician to provide industry with required personal care involving diagnosis and definitive treatment and prevention.

GRADIE R. ROWNTREE, M. D.

Chairman, Advisory Committee on Industrial Medicine and Surgery

COMMITTMENT OF MENTALLY ILL

Trial testimony by the physician is not the only way in which mentally ill patients may be sent to a state mental hospital, nor is it the best.

Many physicians are unaware of the more simple procedure of using a "35-day observation warrant." Through the expedient of a two-physician certificate that the patient bears observation, a county or circuit court, without a jury, may issue an order sending the patient to the hospital for a 35-day period during which the hospital staff determines whether the

patient is sufficiently ill to remain any longer.

Since absolute diagnosis is difficult on brief examination, the observation period is desirable because the physician does not have to certify that the patient is "mentally ill" but only that he needs "observation in a mental hospital." A further advantage accrues to the patient, whose civil rights are not forfeited as in cases of regular jury and court commitment.

President's Page

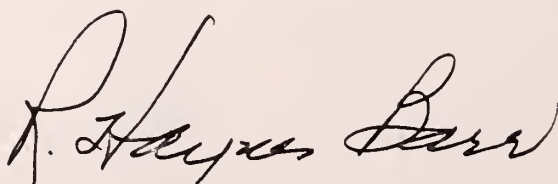
Thursday, March 5, is the date of the Third Annual Conference of County Medical Society Officers, at the Brown Hotel, Louisville.

Comfortably packed into the one-day program will be nationally known authorities on improved, efficient county society operation, covering a wide array of fields extremely important and too long neglected.

The K.S.M.A. staff and your officers have worked for several months securing experts who will handle widely diversified topics in the fields of public service, press, radio, legislation, and post-graduate education.

For the first time all members of the Association are cordially invited. However, it is essential that every county society have in attendance its president, secretary, legislation chairman, and public relations chairman. The outstanding caliber of the speakers deserves a record attendance. Your officers will be greatly embarrassed if we do not have it.

So, mark your calendars now, discuss it in your county societies, and be sure to attend. Ask about its values from those who attended the last conference.

A handwritten signature in cursive script, reading "R. Hayes Barr". The signature is written in dark ink and is positioned above the printed name of the president.

PRESIDENT

ORGANIZATION SECTION

County Officers Conference Slates Five Nat'l. Leaders on Program

Five nationally recognized leaders in the various fields of organized medicine will be featured on the Third Annual County Society Officers Conference program, Thursday, March 5, at the Brown Hotel, Louisville. Clyde C. Sparks, M. D., chairman of the Council, announced.



Dr. Elmer Hess

Elmer Hess, M. D., Erie, Pennsylvania, will discuss "Fees and Doctor - Patient Relationships," as the luncheon speaker during the day-long session sponsored by the Council. Dr. Hess is chairman of the Council on Medical Service of the American Medical Association and author of the famous Hess Report on Hospitals to the American Medical Association House of Delegates.

Edmond K. Yantes, M. D., of Wilmington, Ohio, will discuss "Stimulating Interest in County Society Activity," and Aubrey Gates, field director for the A.M.A. Council on Rural Health, will discuss "Why Physicians Should Want a County Rural Health Council." Dr. Yantes is from the county seat of Clinton County, whose medical society, because of some of its outstanding achievements, is famous even behind the Iron Curtain.

Julian P. Price, M. D., of Florence, South Carolina, will speak on "The Doctor's Responsibility in the Role of Community Affairs," and another prominent physician, Elden C. Baumgarten, M. D., Detroit, will talk on "Abuses of Voluntary Health Insurance."

"So You Want to Pass a Law," will be the subject of an address by State Senator Lewis Cox of Frankfort. Other features of the Conference will include a "Summary of the Services County Societies Can Expect from the field secretary," by W. Vinson Pierce, Covington, chairman of the Education Campaign Committee, and a panel composed of newspaper and radio men and moderated by President R. Haynes Barr, M. D., Owensboro. Its title is "The Doctor Meets the Press."

Dr. Barr will preside at the morning session, and Dr. Sparks will moderate the discussion period. J. Duffy Hancock, M. D., Louisville, president-elect, will moderate the afternoon session, and J. Farra Van Meter, M. D., Lexington, vice-chairman of the Council, will conduct the afternoon discussion.

All members of the Association will be welcomed to the meeting, Dr. Sparks said, and all county society officers and committee chairmen along with state officers and committee chairmen will especially be urged to attend.

Five Ky. Men at Denver Session

The following Kentucky physicians attended the Sixth Annual Clinical Session of the American Medical Association held in Denver, Colorado, December 2 to 7, according to the A.M.A. daily bulletins: W. Clark Bailey, M. D., Harlan; G. Y. Graves, M. D., Bowling Green; C. C. Howard, M. D., Glasgow; and Bruce Underwood, M. D., Louisville.

Dr. Howard and Dr. Underwood served as K.S.M.A. delegates to the A.M.A. House of Delegates meetings.

Significance of Cough Topic for Seminar Broadcast Feb. 24

"The Significance of Cough" is the topic to be considered at the second broadcast on the series of four telephone seminars, Tuesday, February 24, at 7:30 p.m., C.S.T., over a state-wide network, it was announced by Robert Lich, Jr., M.D., chairman of the Committee on Medical Education.

"Abdominal Emergencies" was scheduled for discussion at the first broadcast, Tuesday, January 27, at 7:30 p.m. Subsequent seminars will be "Office Proctology" broadcast on March 31, and "Ophthalmology in General Practice" on April 28.

Harper E. Richey, M. D., Louisville, will moderate the program on cough, February 24. Others on the panel are Oscar O. Miller, M. D., clinical professor of medicine, John S. Harter, M. D., associate clinical professor of surgery and chief of thoracic surgery, and W. B. Troutman, M. D., assistant clinical professor of medicine, Dr. Lich said.

It was emphasized by the chairman of the committee that there is still time for county medical societies to subscribe to the remaining broadcasts in this series. Notice should be given the headquarters office, 620 South Third Street, Louisville, as soon as possible.

These seminars are broadcast by the Kentucky State Medical Association in co-operation with the University of Louisville School of Medicine and under the direction of the Committee on Medical Education.

Community Action Aim of Mar. 11 Rural Health Conference

"Following Through Back Home," will be the theme of the Second Annual Kentucky Rural Health Conference to be held in Louisville, March 11 and 12, according to Walter L. O'Nan, M. D., chairman of the Kentucky Rural Health Council.

Dr. O'Nan expressed the hope that all rural members of the Kentucky State Medical Association would urge their fellow citizens to attend the conference, which will be held at the Kentucky Hotel during the afternoon and evening of March 11, and the morning of March 12. He extended a special invitation for physicians, themselves, to attend.

"Elevation of Kentucky rural health standards, which is the objective of the conference, can only be accomplished through the program's full local implementation," he said. "This calls for a high level of voluntary co-operation by Medicine, farm organizations, public health officials, parent and teacher groups, and all other community leaders interested in good health."

Dr. O'Nan, who is also chairman of the Kentucky State Medical Association Committee on Rural Health, stated that it is the belief of both the committee and the Kentucky Rural Health Council that the formation of local rural health councils by the people in each farming community will be a major step in solving the problems of each.

"The 1953 Kentucky Rural Health Conference is aimed at stimulating the development of such rural health councils," he said. "To this end, the conference program will include discussions on the nature of specific problems which may be attacked through rural health councils and practical procedural information on how farm people may undertake creation of rural health councils in their own communities."

Southeastern Surgical To Meet in Louisville March 8-12

More than 500 surgeons are expected to attend the five-day meeting of the Southeastern Surgical Congress, March 8 to 12, at the Brown Hotel, Louisville, said J. Duffy Hancock, M. D., Louisville, general chairman of the meeting.

All members of the Kentucky State Medical Association are invited to attend the sessions, which will feature one of the outstanding surgical programs of the year, according to Dr. Hancock. In addition to the scientific program other activities are being arranged to entertain the visiting surgeons and their wives. These will include sports, side trips to places of historical interest, and various social affairs.

Committee chairmen who have been named to make local arrangements are: Reception, J. B. Lukins, M. D.; Entertainment, J. Andrew Bowen, M. D.; Golf, Henry B. Asman, M. D.; Hotel, C. Melvin Bernhard, M. D.; Auditorium and Technical Exhibits, Robertson O. Joplin, M. D.; Publicity, Woodford B. Troutman, M. D.; and Transportation, Herman Mahaffey, M. D. Mrs. John S. Harter, chairman of Women's Registration, and Mrs. Karl D. Winter, chairman of Women's entertainment, complete the list. All are of Louisville.

Harry L. Claud, M. D., Washington, D. C., is president of the sectional group, and B. T. Beasley, M. D., Atlanta, is secretary. The February issue of the Journal will cover highlights of the scientific program.

Dr. Bailey Speaks on Symposium at Nat'l. P-R Conference

W. Clark Bailey, M. D., Harlan, immediate past president of the Kentucky State Medical Association, was one of the speakers at the American Medical Association Fifth Annual Public Relations Conference held December 1, in conjunction with the A.M.A. Clinical Session in Denver.

"Keeping Up to Date on Medicine's Activities" was the subject of Dr. Bailey's talk, which was presented as part of a symposium on how the individual doctor fits into the public relations picture.

Other participants in the symposium included H. Gordon MacLean, M.D., past president of the California Medical Association, Otto N. Glesne, M. D., chairman of the Iowa State Medical Society Committee on Public Information, and Charles H. Richardson, M. D., past president of the Medical Association of Georgia.

Ky. Academy of G P to Open First Two-Day Meeting April 22

The 1953 Annual Meeting of the Kentucky Chapter of the American Academy of General Practice will be the first annual session to last two days and will be held Wednesday and Thursday, April 22 and 23, in Louisville, Joseph M. Eush, M. D., Mt. Sterling, president of the chapter, announced.

* A feature of the assembly will be a dinner meeting, Wednesday evening, presenting a nationally recognized speaker. All events will be held in the Roof Garden of the Brown Hotel.

"Five outstanding essayists will present scientific papers on Wednesday," according to D. G. Miller, Jr., M. D., Morgantown, secretary of the Kentucky group and one of those co-operating in the arrangements.

"Latest Advances in Therapeutics As They Relate to the General Practitioner," will be the general theme of the program Thursday, which will be given by the faculty of the University of Louisville and set up by Herbert L. Clay, M. D., director of Post Graduate Refresher Training at the university.

Saturday Evening Post Carries Article on Dr. Miller

Butler County's D. G. Miller, Jr., K.S.M.A. member, his office and practice, were subject of a long article in the Saturday Evening Post, December 13.

Entitled "The Ingenious Doctor of Morgantown, Kenutcky," the article was written by the Post's free lance correspondent, J. C. Furnace. The author spent a week last July in Morgantown talking to local citizens in all walks of life to collect material for the article.

After his visit to Morgantown, Mr. Furnace told a member of the Journal staff at the headquarters office that he was first attracted to Dr. Miller by a news article describing the latter's exhibit at the 1952 meeting of the American Academy of General Practice at Atlantic City. Mr. Furnace cleared the matter with the Post's editors and made arrangements with Dr. Miller at the 1952 Annual Meeting of the American Medical Association in Chicago for the Morgantown visit.

The exhibit that started this train of events was presented at the 1952 Annual Meeting of the Kentucky State Medical Association in Louisville.

Dr. Johnston Succeeds Dr. Elliott as Fayette County Leader

Coleman C. Johnston, M. D., was chosen president of the Fayette County Medical Society to succeed Richard G. Elliott, M. D., at the December meeting in Lexington. N. Lewis Bosworth, M. D., was named vice-president, and John B. Floyd, Jr., M. D., was re-elected secretary and treasurer.

The state's second largest county group re-elected the four delegates to the annual meeting of the Kentucky State Medical Association whose terms had expired in 1952. They are: John W. Scott, M. D., Theodore L. Adams, M. D., Carl H. Fortune, M. D., and Dr. Bosworth. All officers and delegates are from Lexington.

"Eclampsia" was the subject of a paper presented at the scientific session of the December meeting by an obstetrician from Cincinnati. The talk was illustrated by a prize-winning movie.

Tri City OB and GYN Meet Feb. 24

The Tri-City OB and GYN Society will hold its annual meeting February 24, at the University of Cincinnati School of Medicine. Membership in the tri-city group is made up of the members of the obstetrics and gynecology societies of Louisville, Indianapolis, and Cincinnati.

UMWA Medical Advisors Endorse Medical Care Program

General approval of the medical care program of the United Mine Workers' Welfare and Retirement Fund, including plans for constructing ten hospitals in Kentucky, West Virginia, and Virginia, was expressed by the Fund's Medical Advisory Committee at a recent meeting in Washington, according to a release from U.M.W.A. headquarters.

Medical and hospital services totaling \$50,-000,000 in behalf of soft coal miners and their families were paid in the fiscal year ending June 30, 1952. Three Memorial Hospital Associations have been established in the three states, and loans to them have been approved by the Fund for construction of the ten institutions within the next three years.

Special interest has been shown by the committee, the release states, in the inclusion of rehabilitation facilities and the development of out-patient services in the new hospitals.

Commenting on the Fund at the U.M.W.A. national convention in Cincinnati, Mr. John L. Lewis said "I am glad to note . . . that this plan of the United Mine Workers is not socialized medicine." He then repeated a statement by Warren F. Draper, M. D., executive medical officer of the Fund, to the effect that the plan operates as a free enterprise by purchasing the services of the medical profession.

Hill-Burton Construction to Hit \$36 Million in State

A report from Washington indicates that the status of Hill-Burton hospital construction in Kentucky is 73 projects already completed, under construction, or approved for construction for a total expenditure of \$36,469,543.00, and representing federal grants of \$19,156,736.00.

In actual operation today, the report showed, are 23 projects at a total cost of \$12,714,169.00, including federal contribution of \$4,860,718.00, and supplying 902 additional beds; and under construction are 49 projects costing \$22,476,254.00, including \$13,443,271.00 in federal funds, and designed to supply 1,862 beds.

Two projects approved but awaiting construction will cost \$1,279,120.00, with \$852,747.00 of it federal contribution. This project will add 300 beds.

Mutual Understanding Stressed at P-R Conference, Denver

"Mutual understanding—the key to better public relations" was the theme of the American Medical Association's Fifth Annual Medical Public Relations Conference in Denver, December 1.

Highlights in the program were a symposium on "the individual doctor in the P-R picture;" a panel discussion, "building co-operative physician-hospital P-R programs;" and a panel discussion, "building understanding with future M. D.'s."

Participants in the conference program included physicians from 12 states, including Kentucky, which was represented by W. Clark Bailey, M. D., Harlan.

The public relations conference, which customarily precedes the A.M.A. annual Clinical Session by one day, is held for the purpose of acquainting medical association public relations committee members and others interested in the problem with P-R methods which are being successfully used elsewhere.

Hospital Staff and Doctor Draft Problems Get SS Attention

Some suggestions as to where hospitals may look for replacements for their intern and resident staffs in the future were given by the National Advisory Committee to the Selective Service System in a recent bulletin.

The Advisory Committee recommends that when the supply of Priorities I and II physicians is exhausted, which it expects to occur in the near future, hospitals fill their residencies from:

1. Medical graduates who already have had military service.

2. Physicians who are being discharged from service, the number of whom now equals the number of physicians being called to active duty.

3. Women and other physicians who are not obligated for military service.

The only source of physicians available, after the first two priorities have been absorbed, to serve as junior medical officers will be recent graduates and certain age groups in Priority III, the bulletin points out.

It is also suggested that recent medical graduates be made available for military service after the completion of one year's internship and that members of this group avoid plans for starting their residencies until after their tour of duty in the armed services has been completed.

New KSMA Members Welcomed

The Association is pleased to welcome the following new members:

Jefferson—Warren H. Ash, Robert Glen Boles, Rudy J. Ellis, Eric R. Skoluda, and Frank M. Alfano (Associate), all of Louisville.

Attends Farm Bureau Meeting

Walter O'Nan M. D., Henderson, chairman of the Kentucky State Medical Association Committee on Rural Health, together with representatives of the headquarters staff, was invited to participate in the meeting of the Committee on Medical Care of the Kentucky Farm Bureau Federation at the time of its state convention, November 16, Louisville.

It was stated at the meeting by Farm Bureau members that the committee expected to major on promoting the establishment of local rural health councils during the coming year. Dr. O'Nan thanked the committee for its splendid support of the rural health movement.

County Officers to Eat at Special Councilor Tables March 5

An innovation at the luncheon of the Third Annual County Society Officers Conference will be a table designated for each of the 15 District Councilors and the officers of the counties incorporated in his district, Clyde C. Sparks, M. D., Ashland, chairman of the Council, announced.

The purpose of the special tables will be to facilitate greater association of the councilor and his county officers during the luncheon hour for planning the next district meeting and for discussing the problems with which the members of the district or their councilor may be faced, Dr. Sparks said.

Each county is urged to send its officers or to delegate definitely to others, when one or more of the officers cannot attend, the responsibility of representing it at the councilor's table during the Conference luncheon. In addition, the chairman pointed out, all members of the county societies are invited to attend the day-long Conference.

Dr. Collins Honored by Community

Lister Collins M. D., Mt. Eden, was acclaimed November 18, 1952, for his 50 years of medical service in Spencer and Anderson counties by nearly 350 members of his community who gathered at a dinner in his honor at Mt. Eden.

A. C. Weakley, M. D., and C. C. Risk, D. D. S., of Shelbyville, spoke along with other friends, and a television set was presented to Dr. Collins at the ceremonies, which were sponsored by the Mt. Eden Baptist and Christian Churches on the occasion of his 76th birthday.

Dr. Collins graduated in 1902 from the Hospital College of Medicine, Louisville, and taught school for a year before entering the long practice in which he still serves.

Save Secretary's Time: Pay Dues Early, Dr. Barr Urges

Members were urged to pay their county medical society, Kentucky State Medical Association, and American Medical Association annual dues to the local county medical society secretary at the earliest possible date, by R. Haynes Barr, M. D., Owensboro, president of K.S.M.A., in a recent statement.

"The active, hardworking, and effective county medical society secretary is generally one of the most overworked men in our membership

and the least appreciated in Medicine today. We should remember that he, too, has to make a living, just as we do, and that when we are tardy in the payment of our annual dues, we are making a bill collector out of him," Dr. Barr said. "He deserves our most active co-operation."

Material for use by the county society secretaries which included a manual and report forms for new officers, committees, and dues, was mailed during the middle of November. Dr. Barr urged that those secretaries who, for one reason or another, do not have the necessary material at hand, contact the headquarters office, 620 South Third Street, Louisville.

AMA Members May Choose Journal

To clarify misconceptions which sometimes occur regarding subscriptions to the specialty publications of the American Medical Association, a recent Secretary's Letter explained that a member of the A.M.A. may substitute any one of the nine publications for the regular A.M.A. Journal simply by writing his request to the Subscription Department, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois. The special journals are as follows:

Archives of Internal Medicine

American Journal of Diseases of Children

Archives of Dermatology and Syphilology

Archives of Neurology and Psychiatry

Archives of Pathology

Archives of Surgery

Archives of Otolaryngology

Archives of Ophthalmology

Archives of Industrial Hygiene and Occupational Medicine.

Texas GP Wins AMA 1952 Award: Graduated at U of K

John Maston Travis, M. D., 75-year-old family physician of Jacksonville, Texas, was recipient of a gold medal award as the American Medical Association's "General Practitioner of the Year" at ceremonies held in Denver, December 3, as part of the A.M.A. Sixth Clinical Session.

Dr. Travis, a University of Kentucky graduate, is the sixth to receive the A.M.A. designation as the physician who "best exemplifies the medical profession's devotion and service to patient and community." He began practice in

1907 following his graduation from the old Southwestern University Medical School.

Charles L. Sherman, M. D., Millwood, was selected by the Kentucky State Medical Association House of Delegates as the outstanding general practitioner of the year in Kentucky, and received the J. Watts Stovall Award at the annual meeting last October. Dr. Sherman competed with other state award winners for the A.M.A. honor.

Star on National R-H Bill

Program headliners and subjects at the National Conference on Rural Health, February 27 and 28, at the Roanoke Hotel, Roanoke, Virginia, will be F. S. Crockett, M.D., chairman of the A.M.A. Council on Rural Health, "Looking Back to Look Ahead;" Carl S. Mundy, M.D., Council vice-chairman on financing rural medical care; Frank Peck, managing director, Farm Foundation, Chicago, "The Missing Item in the Family Budget;" and Eugene Butler, editor, Progressive Farmer, Dallas, "Problems of Medical Care in the South."

Stories of success and accomplishment in the procurement of a community hospital, an overall health survey, a general practitioner's approach to rural problems, and medical scholarships will be related by Miss Lilyan Zindell, hospital administrator, Perryville, Missouri, Edmund Yanes, M. D., Wilmington, Ohio, B. N. Salzman, M.D., Mountain Home, Arkansas, and Felix Underwood, director, Mississippi State Department of Health. The Conference will close with a luncheon and address by Louis H. Bauer, president of the A.M.A.

Biliary Tract Surgery

(Continued from page 24)

them undesirable. Most of my cases were given pentothal followed by cyclo-propane and usually some form of curare. Adequate relaxation was the rule and no complications were recognized. Here as elsewhere, it is probably true that the ability of the anesthesiologist is more important than the type of anesthetic agent.

Summary

In summary, I would like to reiterate that preoperative complications are usually due to delay in instituting surgical treatment while post-operative complications (excepting the usual ones of general surgery) generally result from operative difficulties, or mistaken diagnoses.

During the operation itself, good visualization of the vascular and duct structures will reduce injury of them to a minimum. If this is done, drainage employed, mass ligation of the cystic duct and artery avoided, and discretion used in opening the common duct and dilating the sphincter of Oddi complications will be minimized to the point where only inevitable mortality and morbidity will be experienced.

Pertinent Paragraphs

The first Inter-American Session of the American College of Surgeons will be held in Sao-Paulo, Brazil, February 9 to 12. Appearing on the program are outstanding men in widely varied fields of medicine from Brazil, Argentina, Uruguay, the United States, and Canada. Arrangements have been made for additional recreational opportunities to enhance the vacation aspects of the meeting.

Applications for eight fellowships for 1953-54 are being received this month by the A.E.C. Fellowships in Industrial Medicine, Atomic Energy Project, University of Rochester, School of Medicine and Dentistry, Rochester, New York, Attention Dr. Henry A. Blair. With a first year's stipend of from \$3,600 to \$3,950, awards are for one year's academic training in industrial medicine at specified institutions, with possibility of a second or in-plant training year and subsequent employment in the program but without commitment of either the A.E.C. or the trainee.

According to the Health Resources Advisory Committee (Rusk Committee), the Armed Services are now providing the best medical care in history, while at the same time reducing the physician-ration from the World War II peak of six per 1,000 troops to the current 3.7. This results in a saving, the committee reports, of a total of 40 to 50 million dollars and frees an additional 5,000 physicians for civilian practice.

The season's peak in polio cases, which was reached in the week ending September 13, was second in lateness only to one (1950) in the last 12 years, it was announced by Public Health Service. Increases were significant in Minnesota, California, Kansas, Kentucky, Illinois, and Ohio.

Former Governor Keen Johnson of Kentucky, vice-president in charge of public relations of the Reynolds Metals Company, Louisville, was the principal speaker at the Arkansas State Medical Society's Public Relations Institute at Little Rock, November 20. This was the first such institute held by the 77-year-old society, which up to this time had had no public relations budget. About 100 guests attended the one-day program from various sections of the state.

The Kentucky Farm Bureau Federation reports its membership in 1952 hit an all-time high. The figure of 68,290 for 1952 is 4,276 greater than the 1951 membership total. Henderson, Christian, and Daviess had the largest county membership. The Farm Bureau is a member of the Kentucky Rural Health Council and is actively supporting the Rural Health Movement in this state.

Plans are shaping for the annual A.M.A. meeting to take place in June at New York City. Anticipating an attendance larger than the record 15,667 physicians at the 1947 Centennial, the A.M.A. staff has obtained pledges

of 12,000 hotel rooms, three floors of exhibit space for sale to approximately 350 commercial firms, and one floor for the scientific exhibits. Reservations can be made as soon as the hotel advertisement appears in the A.M.A. Journal.

The widely circulated RKO-Pathe film, "Your Doctor," which portrays the work of 35-year-old George Bond, M.D., of Bat Cave, North Carolina, is now available in 16 mm. prints for showing to schools, service clubs, civic groups, industrial plants, and special professional meetings. State and county societies interested in purchasing a print at cost for their film libraries may obtain it through the A.M.A. Public Relations Department.

"Health for Today," an authoritative health column by W. W. Bauer, M.D., director of the A.M.A. Bureau of Health Education, is now syndicated six days weekly from coast to coast through King Features Syndicate. The first article appeared January 5. The column, which was given authorization from the Board of Trustees, deals with health subjects rather than disease.

News Items

William H. Hagan, M. D., has returned to Kentucky for the practice of surgery after post graduate work in Pennsylvania. A graduate of Harvard University Medical School in 1945, he is now located in the Brown Building, Louisville.

A. J. Pauli, M. D., returned from navy service in November to the practice of obstetrics and gynecology. He is located at 1122 South Second Street, Louisville. Dr. Pauli graduated from the University of Arkansas School of Medicine in 1931.

Roy A. Martin, M. D., has become associated with **Alex M. Forrester, Jr., M. D.,** in the practice of otolaryngology, Louisville. Dr. Moore recently returned from New Orleans where he spent a two-year residency and had a basic course in ear, nose, and throat at Tulane University. Graduating in 1944 from the University of Louisville School of Medicine, he served his original internship and a residency in sur-

gery at Nashville General Hospital, Nashville, Tennessee and was stationed in Germany with the U. S. Army from 1946 to 1948. After his discharge he practiced general medicine until 1950 in Munfordville, Kentucky.

R. Glen Boles, M. D., has returned to Louisville after six years in the Army and is associated with **M. Clinton Baker, M. D.,** in the practice of ophthalmology and otolaryngology. Graduating in 1945 from the University of Louisville School of Medicine, Dr. Boles served internship and residencies while in the army at Crawford W. Long Memorial Hospital at Atlanta, Oliver General Hospital, Augusta, Georgia, and Nichols Veterans Hospital, Louisville.

Henry J. Richmond, M. D., has returned from service in the navy and is now located at Children's Hospital, Louisville. Dr. Richmond graduated in 1948 from the St. Louis University School of Medicine.

Champ Ligon, M. S., M. D., recently became an associate in the practice of psychological medicine of the Leed Clinic, Lexington. Dr. Ligon graduated in 1951 from the University of Louisville School of Medicine and interned at St. Joseph's Hospital, Lexington.

Robert M. Sirkle, M. D., Martin, has been elected Grand Master of the Grand Masonic Lodge of Kentucky. In this position, he is the titular head of the Masonic lodges of the state. Dr. Sirkle is secretary of the Floyd County Medical Society.

Condict Moore, M. D., has announced the opening of his office at Louisville for the practice of general surgery and neoplastic diseases. Dr. Moore is a 1942 graduate of Columbia University College of Physicians and Surgeons. He

interned at Methodist Hospital, Brooklyn, New York, and became assistant resident at Memorial Hospital and St. Luke Hospital, New York. He also served in the navy.

Robert A. Hall, M. D., was recently released from the armed forces after two years service and has returned to Paintsville and Johnson County where he has re-established his practice.

Herbert E. Bessinger, M. D., has left Weeksbury where he did general practice in medicine to serve an internship at the University of Illinois Research and Educational Hospital, Chicago. Dr. Bessinger graduated from the University of Illinois College of Medicine in 1949.

In Memoriam

DR. ROBERT JULIAN ESTILL

Versailles

1878 - 1952



Dr. Robert Julian Estill, 74, of Versailles, retired Lexington pediatrician, died October 11, 1952, after an illness of two months. He practiced in Lexington until his retirement four years ago.

Dr. Estill was born October 23, 1878, in Fayette County, a son of the late Mr. and Mrs. Robert C. Estill. He was a lieutenant-colonel during World War I and commanded Base Hospital No. 8 in France. He was graduated in 1897 from Transylvania College and took his medical training at College of Physicians and Surgeons, Columbia University, New York City, from which he was graduated in 1902. He interned at New York Post Graduate Hospital and returned to Lexington and practiced pediatrics for about 45 years.

Dr. Estill was president of the Kentucky State Medical Association in 1927, a member of the American Medical Association, Southern Medical Association, Central State Pediatrics Society, Dudley Journal Club, Lexington, and

was credited with being one of the first Lexington doctors to become associated with the Baby Milk Supply.

DR. K. S. McBEE

Owenton

1875 - 1952

Dr. K. S. McBee died at his home September 20, 1952, following an illness of several months.

Dr. McBee was born in Grant County, May 16, 1875 and was graduated at the Louisville Medical College in May 1898. He practiced his profession for eight years in Grant County. He located in Owenton in 1906 and continued until his death.

He served as examining physician on the board of Selective Service in World War II and as Secretary of the Grant County Medical Society for a number of years. He was also a member of the Kentucky State Medical Association.

DR. R. M. TEATER

Nicholasville

1898 - 1952

Dr. Rice M. Teater, 54, native of Jessamine county and practicing physician in Nicholasville for twenty-five years, was burned fatally at his home, October 21.

Dr. Teater was graduated with highest honors in the class of 1927 from the University of Louisville Medical School. He was an active member of the county and state medical societies.

County Society Reports

JEFFERSON

The Jefferson County Medical Society met October 20, 1952, at the Brown Hotel Crystal Ballroom. Officers and speakers of the Community Chest and Safety Director James E. Thornberry were seated at the speakers' table. The meeting was held conjointly with a dinner planned by the Community Chest to honor the society.

The meeting was called to order at 8 p. m., and Mr. Thornberry spoke on the subject of the bond issue. Dr. J. Murray Kinsman explained why the medical school cannot use funds raised by the bond issue but urged doctors to support the bond issue because of other benefits which will result, particularly in improvements to Louisville General Hospital.

Dr. Woodford E. Troutman moved that each physician present pay for his own dinner, thereby relieving the Community Chest of this obligation. Carried.

Dr. Slucher introduced the officers and speakers of the Chest, and there were addresses by Mr. Carl Lynge, plant manager of General Electric Company, and Dr. Rabbi Rauch. After their talks, pledges were signed by the physicians.

At 9:05 p.m. the business meeting opened and the minutes were read and approved. The following new members were elected:

Warren H. Ash, M. D., and Harold C. Morris, M. D., active memberships; Frank M. Alfano, M. D., associate membership.

The following members were approved for reinstatement:

R. Glen Boles, M. D., William H. Hagan, M. D., Hollis Johnson, M. D., Herbert D. Kerman, M. D., W. C. McNeil, M. D., and Grover B. Sanders, M. D.

The secretary read proposed changes in the By-Laws of the Jefferson County Medical Society (Chapter IV, Article C) which deal with the Library Committee and a proposed agreement concerning the library.

Dr. Charles Wood moved that this amendment be adopted. Carried.

The secretary read proposed changes in the By-Laws (Chapter I, Article A, Section 2, and Chapter I, Article B, Section 1) recommended by the Executive Committee in order to permit dentists to become members.

The motion was made and carried that the proposed changes be adopted.

Dr. Kinsman moved that the agreement as proposed by the Library Committee be adopted by the society. Carried.

A preliminary report was made by Dr. D. M.

Cox, chairman of the special committee appointed by the president, to study his recommendations for the employment of an executive secretary for the Jefferson County Medical Society.

Dr. Glenn Bryant moved that the society go on record as favoring such legislation by our next state legislature that will make it possible for a bond issue to be raised in support of the medical school. Carried.

The meeting was followed by a scientific program on "Radioactive Iodine: Its Status as a Therapeutic and Diagnostic Agent," by Herbert D. Kerman, M. D., Harold Berg, M. D., and David Shapiro, M. D. There was a discussion by Dr. Troutman and the meeting adjourned.

Robert C. Long, M. D., Secretary

JOHNSON

The first fall meeting of the Johnson County Medical Society was held at the Hotel Herald, October 29, 1952. After a joint dinner of the society and the auxiliary, the two groups separated for their respective meetings.

The society had as guests the following dentists and their wives: G. P. Salyers, G. M. Stafford, J. H. Rapier, and A. F. Williams. Other guests included Dr. T. E. Walden and Mrs. Walden, Mr. Vern Horne, and Mr. J. E. Eddleman.

The following members and their wives were present: Paul B. Hall, Lon C. Hall, Robert A. Hall, James Archer, D. H. Dorton, Jr., C. L. Preston, A. D. Slone, and John Turner.

The meeting was called to order by the president, Dr. Turner.

It was moved that the society aid the local Parent-Teacher Association with a donation toward a birthday calendar being made for the benefit of the local school lunchroom. Carried.

It was moved that the society donate the trophies for the Big Sandy Bowl football game on November 13, the profits of which are to be applied to the erection of bleachers at the local school field under the sponsorship of the Junior Women's League. Carried.

A vote of thanks was given Dr. T. E. Walden, optometrist, for contributing eye examinations to needy children to enable them to continue school. The society paid the cost of glasses for 25 children.

Mr. Vern Horne, superintendent, Johnson County Schools, and Mr. J. C. Eddleman of the city schools talked about the physical examination of the first, fifth, and ninth grade school children by the medical and dental so-

cieties each year. It was announced that examinations are scheduled for each Thursday afternoon starting November 13, with a charge of \$2.00 for each child, except where parents are unable to pay. Services of the physician and dentist are donated, the proceeds going to the society for its program.

Mr. Horne and Mr. Eddleman thanked the members for their work in previous years and expressed the thought that this was the best method for conducting the work, to detect the gross defects and report them to the parents for correction.

The group discussed the plan to organize a medical-dental society in Johnson County. It was agreed to give further consideration to this matter at the next regular meeting, which is December 30, the last Tuesday of the month.

The group extended a welcome greeting to Dr. Robert A. Hall of the medical society and Dr. J. H. Rapier of the dental society, both of whom have just been released from the armed forces after serving for two years. The group expressed regret for the death of Dr. H. G. Hazelrigg, who served the county as dentist for many years and welcomed Dr. A. F. Williams, dentist, who came from Ashland with his family to serve the county.

Augustus D. Slone, M. D., Secretary

MUHLENBERG

The Muhlenberg County Medical Society met on December 5, 1952, with the following members present:

Doctors Frank A. Bechtel, George F. Brockman, Richard E. Davis, George H. Rodman, Gaithel L. Simpson, John P. Walton, Claude Wilson, Foster M. Wilson, and Hylan H. Woodson, Jr.

The meeting was called to order by the president, Dr. Claude Wilson, and the minutes were read and approved.

Dr. Wilson announced that because of the cumbersome size of the Committee on Medical Economics, its report would not be submitted until the next meeting.

A letter was read from the American College of Surgeons extending an invitation to a sectional meeting, and reports were read from elected officers and committees of the Kentucky State Medical Association.

The following officers were elected by acclamation:

President, Dr. F. A. Bechtel; vice-president, Dr. G. H. Rodman; secretary, Dr. G. F. Brockman; delegate to the Kentucky State Medical

Association, Dr. R. E. Davis; alternate delegate to K.S.M.A., Dr. H. H. Woodson; censor, Dr. C. Wilson.

G. F. Brockman, M. D., Secretary

ROCKCASTLE

The Rockcastle Medical Society held its monthly meeting Monday, December 1, 1952, at 7 p.m. in the high school at Livingston.

A film was shown on hypertension that was made during the meeting of the American College of Physicians in Cleveland last year. The film was followed by a general discussion on treatment of hypertension.

The group discussed community medical centers and the proposed hospital to be constructed under a \$100,000 bond issue voted by an eight to one majority in the November election.

New officers were elected for 1953 as follows:

Dr. George Griffith, Mt. Vernon, president; Dr. Robert G. Webb, Livingston, secretary; Dr. Walker Owens, Mt. Vernon, delegate to the Kentucky State Medical Association House of Delegates, and Dr. Nevil M. Garrett, Brodhead.

R. G. Webb, Secretary

SCOTT

The Scott County Medical Society met on Thursday, October 3, at the John Graves Ford Memorial Hospital in Georgetown with six members attending.

The motion was made and carried to submit a list of the members of the Society to the hospital board for placement in the cornerstone of the hospital's new addition. It was further agreed that more scientific programs be planned for our meetings with responsibility rotating alphabetically among the members.

Those present were: W. S. Allphin, M. D., E. C. Barlow, M. D., H. V. Johnson, M. D., A. F. Smith, M. D., H. G. Wells, M. D., and F. W. Wilt, M. D., all of Georgetown.

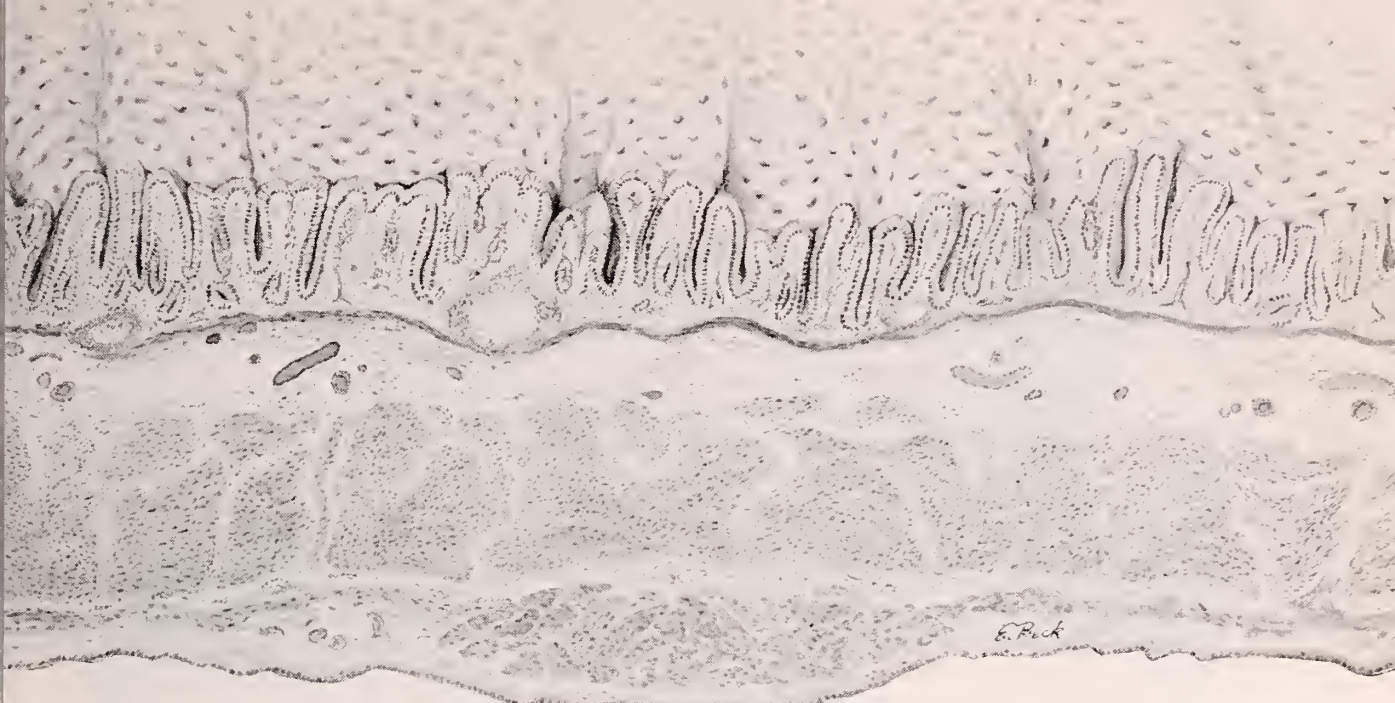
H. V. Johnson, M. D., Secretary

SCOTT

The regular monthly meeting of the Scott County Medical Society was held on Thursday, November 6, 1952, at the John Graves Ford Memorial Hospital in Georgetown. The following members were in attendance:

Doctors D. E. Clark, Jr., P. H. Crutchfield, W. S. Allphin, A. F. Smith, F. W. Wilt, E. C. Barlow, H. G. Wells, and H. V. Johnson.

Dr. Thomas B. Phinizy, a representative of



Normal peristaltic action results from activity of the muscle layers as they are gently distended by bulk within the intestine; mucosal irritants cause overactivity of the muscle layers resulting in hyperperistalsis or spasm.

Corrective Action of Metamucil® in Abnormal Physiology of Constipation

Abnormally prolonged colonic retention, whether in a spastic or an atonic colon, demands the greatest care to assure correction.

The mucosa does not require stimulating; hence, stimulating cathartics, "roughage" and other physical and chemical irritating measures, are today often considered irrational.

On the other hand, the muscularis does require a stimulus to initiate peristalsis. This physiologic stimulus is the mechanism by which bland distention of the colon establishes a reflex, with the muscularis at the terminus of the reflex arc.

Metamucil literally reeducates the sluggish and also the spastic colon. Taken with adequate amounts of water, Meta-

mucil forms a smooth, hydrophilic colloid. As this colloidal mass passes through the large intestine, it exerts a gentle, distending pressure within the lumen, thus initiating the peristaltic reflex necessary for evacuation.

A program of Metamucil therapy helps to restore proper tone to the intestinal musculature, thereby establishing proper bowel habits.

Metamucil® is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

G. D. SEARLE & Co.
Research in the Service of Medicine

the State Board of Health, was a guest of the society.

The minutes were read and approved.

Dr. Allphin, program chairman, called on Dr. Wells to give a report on the state medical meeting at Louisville. Dr. Wells made a complete report with emphasis on the actions of the House of Delegates.

Dr. Witt, chairman of Diabetes Detection Week, reported that he had the tablets for the tests which would be available to all doctors taking part in this campaign.

Attention was called to the Mobile Cancer Clinic which is to be held in Georgetown at the New Health Center on November 19, 20, and 21. The secretary reported he had sent notices to all doctors in the county urging them to send in patients for examination.

The question of patients calling for a doctor at night was brought up. It was moved and seconded that the hospital be named as a center for obtaining a doctor's services at night.

The president then called on Dr. Phinzy who gave a short talk on his activities with the State Board of Health in visiting the different health units in 30 counties throughout the state.

H. V. Johnson, Secretary

SHELBY-OLDHAM

The first meeting of the Shelby-Oldham Medical Society since May was held at the Stone Inn, Shelbyville, on September 23. A. D. Doak, M. D., was host.

B. F. Shields, M. D., Chairman of the Censor Committee, presented the name of Albert L. Heise, D.M.D., as an associate member of this society. Dr. Heise was elected.

H. T. Alexander, the president, turned the meeting over to Dr. Doak, who introduced Oscar O. Miller, M. D., of Louisville. Dr. Miller gave a very instructive talk on coughs. His paper was discussed by most of the members present.

The following guest and members were present: H. T. Alexander, M. D., J. R. Furnish, M. D., H. H. Richeson, M. D., A. C. Weakley, M. D., George Ray, M. D., L. B. Sternberg, M. D., A. L. Heise, D.M.D., Wyatt Norvell, M. D., George Perrine, M. D., H. B. Mack, M. D., B. B. Sleadd, M. D., E. L. Houston, M. D., S. B. May, M. D., A. D. Doak, M. D., M. D. Klein, M. D., C. C. Risk, D.D.S., B. F. Shields, M. D., J. T. Walsh, M. D., E. G. Houchin, M. D., W. H. Nash, M. D.

The next meeting will be at the Stone Inn October 23 when Dr. Alexander will act as host.

The meeting was adjourned at 9:45 P. M.
C. C. Risk, D.D.S., Secretary

SHELBY-OLDHAM

The Shelby-Oldham Medical Society met at the Stone Inn on Thursday, October 23, 1952. A turkey dinner was served by the host, Dr. H. T. Alexander.

The following members and guests were present: H. T. Alexander, M. D., A. D. Doak, M. D., A. L. Heise, D. M. D., E. G. Houchin, M. D., M. D. Klein, M. D., H. B. Mack, M. D., S. B. May, M. D., Wyatt Norvell, M. D., George Perrine, M. D., George Ray, M. D., H. H. Richeson, M. D., C. C. Risk, D. D. S., B. F. Shields, M. D., M. H. Skaggs, M. D., B. B. Sleadd, M. D., L. A. Wahle, M. D., and J. T. Walsh, M. D.

It was announced that Dr. Nash was ill at the local hospital, and the secretary was ordered to send flowers.

Dr. Wahle, the county health officer, stated he had a request from the president of Lincoln Institution for the physical examination of the study body. A committee of Doctors Wahle, Doak, and Shields was appointed to make plans for this examination.

Dr. Wahle brought to the society's attention one E. L. Branaham, who opened offices in Shelbyville and advertised as Dr. E. L. Branaham. It was brought out that the said Branaham is not an M. D. and has no legal right to the title of Doctor. The secretary was instructed to write the county judge and county attorney to inform them of the violation of the law.

Dr. Mack spoke on the telephone seminar program that will be given next March.

Dr. Alexander introduced Dr. George Pedigo of Louisville, who spoke on "Jaundice."

C. C. Risk, D.D.S., Secretary

SHELBY-OLDHAM

The Shelby-Oldham Medical Society met at the Stone Inn on November 20, 1952 with the following members and guest present:

Doctors H. T. Alexander, E. G. Houchin, S. G. Houston, M. D. Klein, H. B. Mack, S. B. May, W. P. McKee, G. E. McMunn, C. Wyatt Norvell, H. H. Richeson, C. C. Risk, B. F. Shields, M. H. Skaggs, B. B. Sleadd, L. B. Sternberg, L. A. Wahle, and J. T. Walsh.

The women's auxiliary met at the same time with the following present:

Mrs. Houchin, Mrs. Klein, Mrs. May, Mrs. Norvell, Mrs. Ray, Mrs. Shields, and Mrs. Sternberg.

After dinner, the meeting was called to order by the president, Dr. Alexander. Minutes of the last meeting were read and approved.

The president appointed a nominating committee to present names for election of officers

Refresh...add zest
to the hour



Annual Clinical Conference Chicago Medical Society

March 3, 4, 5, 6, 1953

PALMER HOUSE, CHICAGO

THIRTY-FOUR HALF-HOUR LECTURES BY OUTSTANDING TEACHERS AND SPEAKERS on subjects of interest to both general practitioner and specialist.

FOUR PANELS ON TIMELY TOPICS.

DAILY TEACHING DEMONSTRATIONS.

Neurology Clinic
Dermatology Clinic
Fracture Clinics
Radiology

Obstetric and Gynecology Clinic
Cancer Clinic
Fluid and Electrolyte Balance
Rehabilitation Clinic

SCIENTIFIC EXHIBITS worthy of real study and helpful and timesaving TECHNICAL EXHIBITS.

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

at the annual meeting in December. Appointed were Doctors Doak, Wahle, and Weakley.

Dr. Houchin, host of the evening, introduced Dr. Woodard Corder of Louisville, who gave an interesting talk on anesthesia, which was followed by a group discussion.

C. C. Risk, D.D.S., Secretary

UNION

The regular meeting of the Union County Medico-Dental Society was held at Our Lady of Mercy Hospital in Morganfield at 7:30 P.M., on Tuesday, September 16, 1952. The meeting was called to order by William Humphrey, M. D., president, and the minutes were read and approved.

C. P. Bartley, M. D., Morganfield, and E. V. Bargo, Jr., M. D., Sturgis, were accepted as new members in the society. Dr. Bartley was also placed on the medical and surgical staff of the hospital.

The guest speaker was Captain Hopkins, M. D., post medical inspector and division surgeon at Camp Breckinridge. He gave an informative talk on Brucellosis, a condition on which he made a special study.

It was announced that the following have been named to the civil defense group recently formed in Union County: A. W. Andreasen, M. D., George Welker, M. D., George Higginson, D.M.D., and L. R. Wempe, D.V.M.

A. W. Andreasen, M.D., Secretary

UNION

The regular meeting of the Union County Medico-Dental Society was held at the Lady of Mercy Hospital at 7:30 P.M., October 21, 1952.

The meeting was called to order by William Humphrey, M. D., president, and the minutes of the last meeting were read and approved.

Colonel Ralph Marx, M.D., commanding medical officer at Camp Breckinridge, was the guest speaker. With many years of service in the U. S. Army Medical Corps, he gave a good account of the history of the medical services from the time of their inception under George Washington. He also spoke of the many changes that have occurred in the military status of medical officers since that time and the future of new physicians coming into the army from medical school.

Colonel Marx touched on the medical care of military personnel and the dispatch with which patients are transferred to other hospitals when in need of special care.

A. W. Andreasen, M.D., Secretary

UNION

The regular meeting of the Union County Medico-Dental Society was held at Our Lady of Mercy Hospital August 19, 1952. Preceded by a dinner, the meeting was called to order at 7:30 P. M. by William Humphrey, M. D., president.

The secretary read some important communications from the A.M.A. and the Kentucky State Medical Association. R. Haynes Barr, M. D., president-elect of the latter and guest speaker, was asked to comment on these. He stressed the need for physicians to come out of their "ivory towers" and do some practical thinking on their relations with their fellow men.

Dr. Barr showed how important bills are drafted and presented to the legislature, and he emphasized the importance of personal contact in proving their value. In our own towns lie opportunities to present our case, and particularly, should physicians not be too busy to accept speaking engagements. He further urged members to take more interest in the A.M.A. and the State association, whose financial obligations in proportion to benefits received are extremely small compared with other group associations.

There were questions, and hearty approval expressed. The Society pledged its full support to Dr. Barr during his coming term of office.

Members present were Doctors Carr, Conway, Graves, Andreasen, Higginson, Humphrey, Puryear, and Smith. There being no further business, the meeting was adjourned.

A. W. Andreasen, M. D., Secretary

WARREN-EDMONSON-BUTLER

The Warren-Edmonson-Butler Counties Medical Society held a dinner meeting September 9, at the Helm Hotel, Bowling Green, with 20 members present.

The society unanimously agreed to assist with the opening of the new Bowling Green-Warren County Hospital September 12, 13, and 14. A motion made by Daniel B. McIlvoy, Jr., M. D., and seconded by William R. McCormack, M. D., both of Bowling Green, was passed assessing the society's members \$20.00 each for the use of nursing scholarships.

Aubrey Horwell, M. D., a gastro-enterologist, from Nashville, Tennessee, was the featured speaker in a discussion on colitis. A film demonstrating the use of veratrum viride in toxemia of pregnancy was shown.

Frank H. Moore, M. D., Secretary

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

FEBRUARY, 1953

NO. 2

The General Practitioner Sees The Hypertensive Patient

J. M. BUSH, M. D.

Mt. Sterling

I appreciate deeply the honor of delivering the Oration in Medicine at this meeting to the Kentucky Medical Association. Today I shall discuss some facets of the problem of high blood pressure. I have chosen this subject because of its frequency in the practice of medicine. My purpose is not to divulge to you the results of some original research on this subject, not to profound a new theory of etiology or even of treatment. I wish to present what I believe is a fairly universal problem and my solution, correct or incorrect. From this stimulus I hope that we obtain, over the ensuing months, sufficient criticism and thought to evolve a more comprehensive and better method of meeting this problem than I now propose.

Prevalence

It has been said that 40% to 50% of the population of this country will develop hypertension at some period of life, usually after 40. In my own practice in a small town and rural community a survey of my records on which I have recorded blood pressures, indicates an incidence of elevated blood pressure of 429 of 1,609 patients or 26.1%. This is using a standard of 150 mm. Hg. systolic maximum and 90 mm. Hg. diastolic maximum. After the period of observation which constitutes my years in practice, I have begun to wonder whether some of these patients are actually hypertensive even though their blood pressure is elevated. This problem of whom is a hypertensive is important enough to enlarge as the first portion of my discussion. Every patient should be evaluated for remediable cause.

This evaluation though fairly simple is time consuming on the physician's part and expensive to the patient. The moral and ethical problem of ignoring an elevated pressure therefore arises. My solution as to what constitutes elevation and what must be done is as follows:

What Is Normal Blood Pressure

I am not convinced that blood pressures over 150/90 or 26.1% are hypertensive. I am not alone in this opinion since Diehl and Sutherland noted 11.5% of 5,100 healthy college students had systolic pressures over 140. White, Boynton, and Todd found 4,500 of approximately 75,000 university students under 40 had a diastolic pressure over 90. It was therefore with some interest that I followed the work of Masters, et al., as to what constitutes normal blood pressure. As you know, Masters evaluated approximately 16,000 healthy working people from a group of 74,000 and made a statistical compilation according to age which he felt was a very important factor. I have taken the liberty of copying one of his charts since I believe it should be accepted by many general practitioners as we attempt to cull true hypertensives from those normals who yet fall outside that special group from whom life insurance statistics are derived. I prefer such an analysis as Masters' because life insurance normals are based upon an increased morbidity per hundred individuals while I must prognosticate for a single individual.

Discussion of Masters' Tables

These tables of Masters summarize his results. They indicate the normal range of systolic and diastolic pressure by sex

Oration in Medicine delivered before the Annual Meeting of the Kentucky State Medical Association, Louisville, October 7-9, 1952.

NORMAL RANGE AND LIMITS OF HYPERTENSION

SYSTOLIC

Age	Male Normal Range	Female	Male Hypertension lower limit	Female
16	105-135	100-130	145	140
17	105-135	100-130	145	140
18	105-135	100-130	145	140
19	105-140	100-130	150	140
20-24	105-140	100-130	150	140
25-29	108-140	102-130	150	140
30-34	110-145	102-135	155	145
35-39	110-145	105-140	160	150
40-44	110-150	105-150	165	165
45-49	110-155	105-155	170	175
50-54	115-160	110-165	175	180
55-59	115-165	110-170	180	185
60-64	115-170	115-175	190	190

DIASTOLIC

16	60-86	60-85	90	90
17	60-86	60-85	90	90
18	60-86	60-85	90	90
19	60-88	60-85	95	90
20-25	62-88	60-85	95	90
25-29	65-90	60-86	96	92
30-34	68-92	60-88	98	95
35-39	68-92	65-90	100	98
40-44	70-94	65-92	100	100
45-49	70-96	65-96	104	105
50-54	70-98	70-100	106	108
55-59	70-98	70-100	108	108
60-64	70-100	70-100	110	110

and age and the limits beyond which the readings are abnormal. It will be noted that the range of systolic pressure increases gradually with age; that such starts at a lower level in women but equals in the sexes by 40 and above 50 is higher in women. Diastolic readings increase but less markedly. All cases falling between maximum value of normal range and lower limit of hypertensive should be evaluated as to normal or hypertensive upon their clinical status.

Plan of Procedure

Having decided that the patient has a blood pressure elevation that warrants investigation the principal question of this discussion arises as to what further evaluation is necessary. Since it will be necessary for the general practitioner to give complete care to the majority of these patients, we must evolve a practical, economical, yet efficient plan of procedure. Whether this plan is carried out in a hospital or in the doctor's office will be dictated by circumstances.

It is true that 90 to 95% of patients with hypertension will fall in the essential or malignant variety, but we must discover that small group whose etiology can be legion but whose cure depends upon discovery. It is for them as well as to give us a base line to determine progress of the more common disease of unknown etiology that this battery is devised.

Corcoran's Classification

For a working basis let us assume Page and Corcoran's five broad groups of etiology in the classification of hypertension a. renal, b. cerebral, c. cardiovascular, d. endocrine, and finally the unknown which includes essential and malignant. Obviously the first procedure is the history and the second, the physical examination. In the former the family history is most important, according to many, since hypertension is six times as great in those with a positive family history as among those with a negative. Platt states that severe hypertension in persons under forty-five with a negative family history

puts the probability of renal origin about three to one.

Importance of the Ophthalmoscope

In the physical examination the most important aspect is the ophthalmoscope both in assaying the stage and later the progress of the disease. Since for most of us an ophthalmologist will not be readily available it behooves the physician to acquaint himself with the use of this instrument since once the diagnosis is made it becomes more useful than the sphygmomanometer. Dilatation with a 1% solution of paradrine hydrobromide or other drug in a darkened room is necessary for thorough study. It does not matter whether the physician wishes to use the classification of Keith and Wagener which correlates both clinical and fundic findings or prefers to evaluate each element of abnormality separately. In the latter method constriction, sclerosis, hemorrhages and exudative phenomenon as well as papilledema are noted separately.

Treatment of Lability of Blood Pressure

Lability of blood pressure is often suspected but difficult to prove by the physician in his examination. The use of sodium amytal (0.2 gm.) grains 3 by mouth every hour for three hours with blood pressure taken at first dose for a base reading and repeated every half hour until two hours after the last dose is acceptable to remove the element of stress. The results may be very useful as to rationale of therapy in showing the patient how relaxation will actually bring his pressure toward normal. Sodium Nitrite (65mg.) grain 1 every half hour for five doses with the blood pressure taken every half hour for two and a half hours after the test; or sodium pentothal intravenously until the patient is completely asleep are acceptable. The readings in the first two may be done in the office.

Role of Renal Function

Renal function is discussed whenever hypertension is mentioned. Although our tests do not determine whether renal pressor function may not parallel the renal excretory function, evaluation of the latter are our best clinical methods of differentiating elevation due to primary renal disease. These should include estimates of proteinuria, sediment content, and concentrative power. Protein-

uria can be determined quantitatively or qualitatively. The latter by the old heat-acetic acid method is not as satisfactory as the quantitative method but is definitely simpler. If the physician establishes what his trace, one, two, three, and four plus roughly quantitate, this procedure assumes more value. A rough estimate is, a trace equals 0.5 grams of albumin per liter while three plus equals five, and four plus equals ten grams per liter. Proteinuria points to renal vascular injury; when severe (over ten grams per liter), it points to a diagnosis other than essential hypertension. The urinary sediment is also of importance. Excessive white blood cells require a catheterized specimen and persistence, a culture. Repeated positive culture is an indication for specific therapy although its effect upon a given case of hypertension is a matter to be determined only by adequate observation. Chronic pyelonephritis does cause hypertension in some instances though the incidence is debatable.

Renal Function Tests

The third test of urinary function is concentration and dilution. This is the best test of renal function and by far the simplest. It should not be performed in the presence of azotemia, impending or actual renal failure. The presence of edema, excessive hydration from preceding day or failure to abstain from fluids during the test are definite hazards to correct interpretation. Decreased concentrating capacity and glomerular action parallel tubular secretory capacity down to a level of ten to twenty per cent of normal.

Either a modification of the Mosenthal method or the Addis count is satisfactory. Specific gravities of 1.026 to 1.028 indicate a satisfactory ability to concentrate and 1.006 to dilute.

The phenolsulfonphthalein (P.S.P.) test is simple to do but not so sensitive as the concentration and dilution tests.

Intravenous Pyelogram

As a final and next routine test of urinary function may I add the intravenous pyelogram. It is especially indicated in the patient under 30 and is of increasingly less value after 45 years of age. Again we realize its inadequacy in the presence of inability to concentrate above 1.016 and when renal failure is present. This not only serves as test of function but may

reveal congenital abnormalities or unilateral kidney disease. Discovery of the possibility of unilateral disease presents a difficult and expensive problem. Definite evidence of unilateral disease must be established by retrograde pyelography with individual indigo carmine excretion studies, etc. The question of nephrectomy to relieve hypertension is indeed debatable. A good result from nephrectomy is dependent on several factors. It should not be performed if there is a positive family history of hypertension, doubt concerning opposite kidney involvement, long duration of the hypertension, age of patient 45 years or over, and presence of arterial and arteriolar sclerosis. Indications include definite unilateral disease, hypertrophy of the opposite kidney, severe hypertension of short duration in a young person without vascular senescence.

Epinephrine Producing Tissue

Epinephrine producing tissue has been reported with increasing frequency as a cause not only of the classical fluctuating hypertension but of sustained hypertension. It is true that these cases are quite rare but increased awareness of their possible presence may result in a change in statistical incidence. The safest and most specific test is the use of benzodioxane 20 mg. intravenously in 30 seconds after establishing the base level of pressure. Recordings of pressure are made at half minute periods for four minutes after which the effect is usually ended. Ordinary hypertension may show a brief rise in both systolic and diastolic tensions while elevated pressure due to circulating epinephrine results in a drop in systolic pressure exceeding 30 to 40 mm. hg. systolic and 20 to 30 mm. diastolic lasting two to ten minutes. This is limited to these patients having an elevated pressure at the time of examination. For that reason it may be supplemented by either the histamine or mecholyl test or both.

Value of Fluoroscopy of the Chest

The roentgen examination of the chest by fluoroscopy and films is certainly helpful for base line determination. The latter is most important when coarction of the aorta is suspected in the young adult. It may show as an entirely unsuspected condition which is now important because of the surgical relief that is available. A calcified tortuous aorta may suggest tension on the basis of arterial senescence

which prevents the wary practitioner from creating an iatrogenic hypertensive neurosis to dog the declining years of the trusting patient.

Value of the Electrocardiogram

The electrocardiogram provides an excellent means of following changes in the heart, especially if the tracings are taken at intervals of six months to one year. Even isolated tracings are of prognostic value. The patterns most characteristic are left axis deviation and left ventricular strain. Other changes which may be noted in terminal malignant hypertension are evidences of hyperpotassemia and hypocalcemia. More often changes due to myocardial infarctions and coronary insufficiency will be seen.

Basal Metabolic Rate

Optimal in the evaluation may be the addition of the basal metabolic rate. This is at best a very inferior test which may be used when the question of hyperthyroidism is suggested but so many hypertensives will be found to have elevated basals that the significance of elevation must be determined on other grounds.

Obesity

Finally may we add the weight of the patient. Use of the 13cm. cuff has led to error because the increased pressure required to compress the larger mass of tissue in the fat patient is reflected in a higher arterial reading. Loss of excessive weight may so reduce the pressure that the patient can be delivered from the classification of hypertensive.

Summary

The diagnosis of hypertension must not be made upon the basis of systolic pressures of 140, 150 or even 160 and diastolic pressures exceeding 90 or 100. Before a patient is informed that such a diagnosis is applicable to his problem the remediable causes must be eliminated. Although the causes of hypertension are multiple the following procedures will be most useful in a proper conclusion: careful history, physical, urine studies by culture, protein determination, sediment evaluation and check of concentrating power; fluoroscopy and/or films of the chest, electrocardiograms, intravenous pyelograms, benzodioxane test for pheochromocytoma, sodium amytal test and weight check. Other excellent methods of study are cold pres-

sor test, urea clearance tests, complete blood counts, capillary fragility tests, and blood chemistry studies. These are necessary only if indicated, available, reliable as performed, and not too expensive for their worth to the patient.

Conclusion

In conclusion the question of what constitutes levels of hypertension is still debatable. It would appear that statistics gathered for group morbidity are not applicable to individual use without respect to age or sex.

Having decided that a given individual has a blood pressure suggestive of hypertension it behooves the physician to utilize certain simple laboratory examinations before relegating that patient to the category of essential hypertension with all its unpleasant therapeutic and psychic implications.

REFERENCES

- Smith, H. W.: Hypertension and Urologic Disease. *Am. J. Med.* 4: 724, 1948.
- Diehl, H. S. and Sutherland: Systolic Blood Pressure in Young Men. *Arch. Int. Med.* 36: 151, 1925.
- Boynton, R. E. and Todd, R. L.: Blood Pressure Readings of 75,258 University Students. *Arch. Int. Med.* 80: 454, 1947.
- Masters, A. M.; Dublin, L. I. and Marks, H. H.: The Normal Blood Pressure Range and its Clinical Implications. *J.A.M.A.* 143: 17; 1464, Aug. 1950.
- Platt, R.: Severe Hypertension in Young Persons. *Quart. J. Med.* 17: 836, 1948.
- Evans, J. N.; Rubitsky, H. J.; Bartels, C. C. and Bartels, E. C.: Reevaluation of Reliability of Pharmacologic and Cold Pressor Studies in Hypertension and Pheochromocytoma. *Am. J. Med.* 11: 448, 1951.
- Barker, Nelson W.: Hypertension and Unilateral Renal Disease. *Med. Clin. N. Am.* 35: 1041-1050, July 1951.
- Hollenhorst, Robt. W.: The Ophthalmologic Aspects of Chronic Renal Disease. *Med. Clin. N. Am.* 35: 1023-1038, July 1951.
- Thomas, William A.: A Study Plan for the General Practitioner in Diagnosis and Treatment of Hypertension. *Med. Clin. N. Am.* 36: 117-128, Jan. 1952.
- Aranow, Henry Jr.: The Differential Diagnosis of Pheochromocytoma. *Med. Clin. N. Am.* 34: 757-768, May 1950.
- Maynard, Edwin P., Jr.: The Heart in Hypertension. *Med. Clin. N. Am.* 33: 651-614, May 1949.
- Page and Corcoran: Arterial Hypertension, Its Diagnosis and Treatment. The Year Book Publishers, Inc. 1949.

Rural General Practice, 1952

GEORGE F. BOND, M. D.

Bat Cave, North Carolina

There are not many segments of our profession so thoroughly glamorized, loved, pitied, and misunderstood, as those men we call country doctors. Fifty years ago they constituted a majority within our ranks; today we know them as an inarticulate and forgotten group, doomed to a glorious extinction. We continue to give lip service to the needs and rights of our rural population, yet we placidly accept their loss of medical services. Most of us know that the country doctor began to disappear from the national scene about a quarter of a century ago; but few are concerned with the problem of assisting his return. As citizens, we realize that our existence and economy depend upon our rural population; as doctors, we must admit that we are failing miserably in providing medical care for these people. Through individual self-interest, or by virtue of group neglect, we have chosen to avoid the problem. Because of current criticism of our profession, and in line with our fence-mending efforts, let us examine our deficiencies with respect to the

very large rural group whom we have abandoned.

Causes of Shortage

There can be no doubt that a serious shortage of country doctors now exists in the United States, notwithstanding the factors of maldistribution and the current ability of a single doctor to care for a large group of people. It cannot be denied that we are failing to produce and maintain the requisite number of country doctors to provide good medical care for our farm population.

In years past, many reasons have been advanced for the failure of men to go into rural practice. Formerly, it was maintained that the paramount causes of this deficiency lay in the lack of remuneration and in the failure of rural areas to provide the proper social and educational atmosphere for the doctor and his family. Lately the true reason for our present lack of country doctors has been clarified: the lack of modern facilities for the proper practice of medicine. Most of us now realize that the one thing which will cause a man to leave a country practice,

or will prevent the recent graduate from beginning rural work, is the fact that we are forced, through lack of adequate facilities, to practice an ancient type of medicine, no matter how modern our recent medical training may be. This situation is not only distasteful, but, to an honest man, may become intolerable. We should do well to examine the causes of this problem and to seek its remedy.

In a few words, let me dispose of the outmoded arguments of economics and social benefits. In even the most impoverished rural areas, a modern doctor who is willing to do his share of the work will have no difficulty in maintaining an income adequate to his needs. The non-competitive angle of his practice, coupled with lower living costs and the inherent honesty of our country people, is sufficient to guarantee an adequate income to any man who engages in rural practice. The argument of social inadequacy must come to roost on the shoulders of the country doctor himself, since, like the rural preacher and teacher, he is largely responsible for the social and educational atmosphere of his community; and if he is unwilling to accept responsibility for community improvement, he has missed much of his function as a country doctor.

Contributing Causes

The greatest deterrent to the establishment of a modern country practice is the failure on the part of rural communities to provide, or to assist the doctor in providing, adequate diagnostic and therapeutic facilities for the modern practice of medicine. When this failure is coupled with the fact that our country people are poorly educated to the practice of carrying their illness to the doctor and still ask for complete home treatment, the situation becomes one which cannot attract the modern practitioner, regardless of his affinity for rural location. These two deficiencies of facility provision and population education may be considered the fault of the country people themselves; but the medical profession must accept responsibility for the failure to seek and train men specifically for the task of the total practice of medicine in rural areas.

General Practice Teachers

Just how are we failing to educate the men we need today? In the last two decades we have seen the disappearance of

general-practice teachers from our medical school faculties. In some respects, the principle of employing only specialist educators may be wise, since these men can best give condensed information needed to equip our medical students for the job ahead. It is unfortunate, however, that specialist educators have little or no understanding or sympathy for the cause of general practice, and are not likely to encourage an increase in the number of general-practice graduates. This is not the fault of the specialist instructors, but must be marked down as a failure on the part of general practitioners to produce men whose background suits them for teaching positions in our medical schools. Unless we are able to provide posts of instruction in general practice, we may not expect any appreciable output of general practitioners from our medical schools. There is considerable opposition on the part of the staff of medical schools to the acceptance of general practitioners as teaching colleagues. Some of the principles of the AMA Council on Education mitigate against this procedure, since general practice educators must usually be part-time instructors. The preceptorship program has been offered as a substitute although it can only be an adjunct. General practice residencies are being offered, but more often to meet the demand than to fit the need. There must be further and individualized study directed at this problem.

Education of Two Types Necessary

It seems to me that we must educate two types of general practitioners, the one for the work in towns and cities, and the other for remote and isolated areas, where the demand for total service is greater. This latter type graduate, the modern country doctor, suffers a two-fold disadvantage. He must be better trained than most medical graduates; and yet, he voluntarily seeks an area of practice where his financial rewards will not equal the extent of his training. Couple this with the fact that the man best fitted for country practice should be recruited from the lower income farm groups, and the economic problem may become acute. Although the graduate may be sure of a good living income in country practice, he may fail the wherewithall to sustain him in the long years of study which are postulated.

Community Sponsorship

Probably the answer lies equally divided between local interest in the communities from which our country doctors will come and assistance from our state medical societies, with judicious scholarship help from the states concerned. In years past, community sponsorship has produced professional workers aplenty. Is it unreasonable to assume that it cannot be done again? The deadening influence of centralized dictation and federal handout has not yet destroyed our people's sense of communal responsibility, and we would profit by recognition of this fact. For our part, we might increase our plans of assistance to aspirant country medical students, plan for their specific education, preceptor indoctrination, and ultimate satisfactory placement.

Work Shop Program

A program of workshops for our country doctors is equal in importance to their training. We are told by hospital administrators, college professors, and federal prophets, that such tiny units are impossible, costly, wasteful, and dangerous. I submit that no proper study has been done of this question, and that the arguments we hear proceed more from prejudice and ignorance than from knowledge. The fact is that we do not have accurate statistical information on which to base an honest opinion of hospitals under the size of 25 beds, and today's arguments are valueless.

Of this, however, we are sure that without some type of modern facilities for patient care, the country doctor will certainly disappear. If we are willing to accept his demise, and about 100,000,000 people will not, then we may forget about this difficult problem. But if we admit the necessity of medical care for country people, it is right that we learn all about workshops for rural practitioners.

The opportunity is at hand for proper study. Throughout the United States a sufficient number of these small units have already been in operation for many months, and we would do well to urge a thorough examination of the statistics which could be collected. We should not be concerned primarily with figures relative to administrative problems, but we must find out exactly the type of work which is currently being done and all of the factors involved in the professional

services of this hospital to our country people.

Solution of the Problem

Personal experience convinces me that, given an adequate education and the proper tools with which to work, the modern country doctor can and will provide a satisfactory grade of medical care for his patients. In my own situation it has been possible to operate a community owned 12-bed general hospital with satisfactory and ethical results. We in Bat Cave provide about 3,600 patient days of care per year for all services, a little over 9,000 out-patient visits, and take care of the needs of a major portion of my 6,000 mountain people. Our departments of surgery, obstetrics, pediatrics and medicine have thus far yielded results which compare favorably with those of any hospital within our state. We have a reasonably good medical audit, and ancillary specialist services can be attained without difficulty. A preceptorship program has been in effect since the establishment of our hospital and serves a dual purpose of sharpening the doctor and indoctrinating the student. But, by far the most important aspect of our rural setup is that the essential bread and butter type of medical care is available to our people; and they are utilizing that care to their health improvement.

Proper Use of Hill-Burton Funds

It is possible, through community stimulation, and judicious use of the Hill-Burton funds, to provide hospital or clinic facilities for country people in areas where the need is sufficient. This is the result of the financial capacity and know-how of our nation. The problem of providing doctors for these units, however, is one which belongs to our profession, and to none other. If we accept the principle of the rural medical care unit, and encourage construction of facilities, it is our duty simultaneously to train the suitable medical personnel. We must find, train, and provide the country doctor. Some will say that such a man is capable, if so inclined, of doing much harm. I can only say that a combination of good medical conscience plus a controlled clinic or hospital medical unit, would diminish this possibility. Add to this the more widespread use of the preceptorship plan, and the likelihood of medical abuse would disappear.

Summary

For the re-establishment and maintenance of rural general practitioners, I would advocate: (1) that individual state medical societies should seek rural high school graduates desiring and suited for medical practice; (2) that financial means of assistance, other than federal, must be found to provide pre-college tuition and some degree of help be available throughout undergraduate and graduate training; (3) that training in medical schools for these future country doctors be supple-

mented by indoctrination courses in general practice, preceptorships, and a more enlightened plan of general-practice residency, tailor-made to fit the future needs of the doctor; and (4) that we continue to urge, facilitate, and study the program of small rural hospital construction.

Given these requirements, and with introduction to a rural community which will assist in providing the tools of modern practice, the country doctor will continue to survive, and to do a necessary and gratifying job.

Practical Aspects of the Treatment of Purulent Meningitis in Children

ROBERT N. McLEOD, M. D.

Somerset

The recent era of better chemotherapeutic and antibiotic agents has caused most of us to minimize the significance of bacterial infections, among them the purulent meningitides. The sequelae of purulent meningitis have become increasingly important as the survival rate has risen sharply through use of these marvelous agents. Simple survival is no longer a feat but the survival of a patient with normal capacities has become of paramount importance. Early diagnosis and immediate, but adequate, treatment has become the order of the day so as to shorten the period of active infection in the hope of thus lessening the damage done by increased intracranial pressure and impaired cerebral circulation.

To accomplish this aim in children, especially in areas away from medical centers, the problem is twofold: first, to emphasize the greater incidence of meningeal infections in the younger age groups, so that those who first see "sick" children will give more thought to these diseases, and more attention to neurological examination; and, second, to simplify treatment so that precious time will not be wasted before starting effective therapy.

Treatment

Once a diagnosis of meningitis has been made by lumbar puncture and the specific organism isolated, modern drugs, in general, make treatment very simple. However, often it is very difficult to isolate

the specific causative agent, either through lack of proper facilities or because so frequently the child has received some form of chemotherapy before the diagnosis is suspected and the spinal fluid examined. Then, too, even if a culture eventually reveals the organism, 24-48 hours of significant time may have been consumed before optimal therapy is instituted. It appears evident that there must be a more practical approach to the modern therapy of purulent meningitis. The following therapeutic approach is based upon a review of recent literature as well as the results of treatment of thirty-one cases of meningitis during the past two years at a small city hospital.

Therapeutic Approach

If cloudy fluid is obtained from spinal puncture, a cell count and smear are done, and the fluid cultured on blood agar, chocolate agar, infusion broth and an anaerobic medium. If the direct smear reveals cocci, penicillin is given in a dosage of 200-500,000 units intramuscularly or intravenously, and continued in a dosage of 100-300,000 units every two to three hours intramuscularly. In addition 1-2 grains pound of body weight of sodium sulfadiazine is given by clysis in lactate Ringer's solution utilizing some form of hyaluronadise. A similar amount is given daily, orally or by clysis, in an effort to maintain a 10-15 mg/100 CC blood level of sulfadiazine. Infants require the larger amounts to produce this level. If gram negative bacilli are seen on smear, sulfa-

diazine is given in the same dosage and manner together with streptomycin and chloromycetin. Streptomycin is given intramuscularly in a daily dosage of 50 mg/lb., divided into four doses, while chloromycetin is given orally or by gavage 75-150 mg/lb. in 3-6 divided doses daily. For the more severe cases, chloromycetin is now available in intravenous and intramuscular forms. If no organisms are visible on directed smear, penicillin, sulfadiazine and chloromycetin are given by the same routes, and in the same dosages as above.

Choice of Antibiotics

These drugs were chosen because they seemed to offer the widest spectrum coverage available at the present time in a form which could be given with ease to children, because all of the drugs diffuse readily into the spinal fluid¹ and because it was felt that these drugs in combination provided optimal rather than just adequate therapy in the treatment of meningitis. Chloromycetin was preferred to terramycin and aureomycin because it is the only one of the three which readily diffuses into the spinal fluid^{1,2}. In addition, it can be given orally in its Palmitate form with much greater ease, and with less gastrointestinal irritation than can the others. The recent reports³ of occasional bone marrow suppression by chloromycetin do not seem to overcome its advantages in the treatment of such a serious infection as meningitis. Alexander¹ has rather conclusively demonstrated that combinations of therapeutic agents, such as the proposed one, acting through different mechanisms and given in adequate dosage from the onset of therapy, will prevent emergence of resistance by the infecting organism, and thus more rapidly eliminate it.

As a general rule a second lumbar puncture is done 48-72 hours after onset of therapy. If the fluid is sterile by culture, and the patient has been afebrile for 48 hours or longer, therapy is discontinued after 2-4 days. Meningitis due to pneumococci or streptococci may require much longer treatment. In some of the more severe cases chloromycetin or sulfadiazine is given at home for 3-7 days after discharge. It has recently been shown⁴ that in "In Vitro" antagonism between penicillin and the other antibiotics, terramycin, aureomycin and chloromycetin, doesn't exist to any significant de-

gree therapeutically. Alexander¹ has recently demonstrated that if the organisms are first exposed to penicillin for a period of an hour or longer, penicillin and chloromycetin can be safely and effectively used together.

Organisms Involved

Hemophilus influenzae and meningococci together account for the majority of cases of meningitis in childhood. *H. influenzae* meningitis, however, is essentially a disease of infancy, and is rare after the age four⁵. When this diagnosis is made bacteriologically, therapy should consist of sulfadiazine and chloromycetin for a period of seven to fourteen days as discussed above, with the addition of streptomycin intramuscularly for a 2-4 day period. Intrathecal streptomycin and type specific antiserum intravenously are to be considered in severe cases. Streptomycin is given for only 2-4 days at the start of therapy because of the danger of vestibular involvement and because of the rapid development of resistance by the organism to streptomycin¹.

Meningococcic Meningitis

Meningococci are probably the most common etiological agent in the purulent meningitides of children; certainly so in my area, in the past few years. Specific therapy in this type consists of the combination of penicillin and sulfadiazine described above for a period of five to ten days. Ten to forty per cent of the cases of meningococcic meningitis are accompanied by a petechial or ecchymotic rash due to septicemic infarcts⁶. This complicating septicemia often lengthens the time of required therapy.

Infant Fatalities

Fatalities among infants and children with meningococcemia and meningitis at the present time are limited in the main to patients whose clinical picture of severe toxicity and profound collapse with signs of hypotension, a petechial and ecchymotic rash, livid cyanosis of the dependent parts, and eventual death in a state of coma and irreversible shock, has been given the name Waterhouse-Friderichsen syndrome. Clinical evidence and necropsy findings indicate that the impact of overwhelming sepsis on the adrenal glands leads to an adrenal insufficiency and a generalized abnormal capillary permeability which in turn play the central part in

production of the above described clinical picture⁷. Cortisone seems to combat this adrenal insufficiency, and recent reports^{7,8,9} of treatment of this dreaded complication of meningococcemia have been encouraging.

Necessary Therapy

When a patient in any stage of this syndrome is seen, therapy should be instituted as rapidly as possible and be heroic in nature. It should consist of suppurative measures such as blood, plasma, and saline intravenously, oxygen, and adrenal cortical extract in large amounts; penicillin in massive dosage (1,000,000 units intravenously and then 1,000,000 units intramuscularly every 3 hours) and sodium sulfadiazine in the dosage described originally should be begun immediately, and in addition cortisone given in a dosage of 50 mgm. intravenously and intramuscularly and orally on admission, and 25 mgm. orally twice daily for five days.

Pneumococcic Meningitis

Pneumococcic meningitis is essentially a disease of infancy and is usually associated with an otitis media or skull fracture. Dowling¹⁰ has demonstrated the need for massive penicillin therapy in this form of meningitis. Higher dosages, from 300,000 to 1,000,000 units every two hours, are suggested even in children with this infection, in addition to sulfadiazine as previously described. Alexander¹ in her recent monograph on this subject suggests intrathecal penicillin in a dosage of 5-25,000 units on admission in order to cut down on the delay of eight to twelve hours required before adequate concentrations are reached in the spinal fluid after the initiation of intramuscular therapy. Treatment should be continued until cultures have been negative for a week after defervescence.

Meningitis Due to Other Organisms

Streptococcal meningitis is similar in its route of infection, and its treatment to that due to pneumococci¹. Penicillin, chloromycetin or aureomycin, and if necessary, bacitracin, are the therapeutic agents to be used in staphylococcic meningitis¹¹. *E. coli* infections¹ are best treated with sulfadiazine, chloromycetin and streptomycin. *Pseudomonas* infections have responded unsatisfactorily to all

agents except neomycin or polymyxin¹².

Value of Subdural Tap

McKay¹³ and others^{14,15} have recently described the occurrence of subdural fluid collections in patients under treatment for purulent meningitis. This phenomenon has been reported with greatly varying incidence by different groups, and the indications for doing subdural taps in searching for this complication have differed greatly. To summarize them briefly, it seems advisable to do a subdural tap in any patient under treatment for meningitis, who has fever or does not appear to be making a good clinical response after 72 hours of therapy, or who presents convulsions or focal neurological signs at any time during therapy. This complication should be suspected during convalescence if headache, vomiting or any sign of gross neurologic disturbance develops. There may be local signs of the fluid collection such as a bulging fontanel not responding to lumbar drainage, or erythema in the region of the anterior fontanel. Recommendations as to therapy differ, but most of the collections subside after repeated drainage through subdural taps. Occasionally, removal of the membrane surgically is necessary.

Review of Cases

During the past two years, the author has treated 31 cases of bacterial meningitis at a small city hospital using the system of therapy described above. 21 of the 31 patients were less than 5 years old, and only two were over 16 years of age. Five patients died, but all 26 of the surviving patients seemed to be normal to gross examination on limited followup. One of the five deaths was due to *H. Influenzae* meningitis: the other four presented typical clinical pictures of the Waterhouse-Friderichsen syndrome. All of the fatal cases died within 12 hours after admission. A study of the 31 cases reveals that the average duration of symptoms prior to admission was approximately 36 hours. The average hospital stay was 7.1 days, and the average duration of the febrile period from the onset of treatment was less than 36 hours.

There were three cases of pneumococcic meningitis, all of whom survived. Interestingly, in reference to the source of infection, one case had had four mastoidectomies and at the time of admission

had bilateral draining ears. Another had acute otitis media, while the third had suffered a fracture of the cribiform plate. The latter case illustrates a not infrequent pitfall in the therapy of pneumococcal meningitis, in that the patient received penicillin and sulfadiazine for a period of only 10 days, and as a consequence relapsed and required rehospitalization and intensive therapy.

As is frequently the case today, there were eight cases in which no organisms were obtainable by smear or repeated culture. All of them had received antibiotics of some sort (usually penicillin) prior to admission. All received the treatment suggested above with the addition of streptomycin in two cases in which *H. Influenzae* was suspected as the causative organism. There were no fatalities in this group.

There were three cases proved to be due to *H. Influenzae*. The one who died was comatose on admission and lived only 2-3 hours. One case, an infant 8 days old, well illustrates the difficulties in diagnosing meningitis in the newborn. The only symptoms were restlessness of 24 hours duration and accompanied by fever and failure to nurse. The fontanelle did not bulge, and there was nothing evident on physical examination except a suggestion of nuchal rigidity. Both spinal fluid and blood cultures were positive, however.

There were eight cases of meningococcal meningitis without evidence of accompanying septicemia. All recovered rapidly with the above therapy. Nine other cases demonstrated septicemia as evidenced by petechiae and/or a positive blood culture. Seven of these patients presented a typical clinical picture of the Waterhouse-Friderichsen syndrome, although none of the four who died were autopsied. All received the therapy outlined above except that only four received cortizone. One of the latter died but he lived only two hours after admission to the hospital. The other three who re-

ceived cortizone survived without apparent ill effects. Their recovery from a state of profound collapse was in each case most dramatic and rapid following the institution of therapy.

Summary

A practical and yet optimal therapeutic program has been outlined for all patients with purulent meningitis, whether or not the specific organism has been isolated. The treatment of specific types of meningitis has been presented as well as two of the most important complications to this disease process. Thirty-one cases of bacterial meningitis treated at a small city hospital in the past two years were discussed to illustrate this treatment.

REFERENCES

1. Alexander, H. E. Advances in the Treatment of Bacterial Meningitis, in Levine, S. 2 (ed.): *Advances in Pediatrics*, vol. 2 (Chicago: Year Book Publishers, 1947).
2. Smith, R. M., et al.: Chloromycetin: Biological Studies. *J. Bact.* 55: 425, 1948.
3. Editorial: Blood Dyscrasia Following the Use of Chloramphenicol, *J.A.M.A.* 149: 840, 1952.
4. Jawetz, E., Gunnison, J. B., Speck, R. S., and Coleman, V. R.: Studies on Antibiotic Synergism and Antagonism. The Interference of Chloramphenicol with the Action of Penicillin. *Arch. Int. Med.* 82: 349, 1951.
5. Levinson, A.: Meningitis in Brennamann's Practice of Pediatrics. W. F. Prior Co. Hagerstown, Md. 1948, Vol. IV pg. 965.
6. Ford, F. R.: Disease of the Nervous System in Infancy, Childhood and Adolescence, 2nd. ed. Springfield, Ill. Charles C. Thomas Publishing Co. 1944, pg. 499.
7. Nelson, J. and Goldstein, N.: Nature of Waterhouse-Friderichsen Syndrome, *J.A.M.A.* 146: 1193, 1951.
8. Hodes, H. L., Moloshok, R. C., and Markowitz, M.: Fulminating Meningococcemia Treated with Cortisone; Use of Blood Eosinophil Count as a Guide to Prognosis and Treatment. *Pediatrics*: 10:138, 1952.
9. Newman, L. R., Waterhouse-Friderichsen Syndrome: Report of a Cure with Cortisone. *J.A.M.A.* 146, 1229, 1951.
10. Dowling, H. F., Sweat, L. K., Robinson, J. A., Zellers, W. W. and Hirsh, H. L.: The Treatment of Pneumococcal Meningitis with Massive Doses of Systemic Penicillin. *Am. J. M. Sc.* 217: 149, 1949.
11. Terry, F. and Melenc, F. L.: The Treatment of Staphylococcal Meningitis. *Surgery* 28: 516, 1950.
12. Tomlin, C. E.: Pseudomonas Meningitis. Report of a Case with Recovery after Polymyxin B. *Theapv. Arch. Med.* 87: 863, 1951.
13. McKay, J. Jr., Morissette, R. H., Ingraham, F. D., and Matson, D. D.: Collections of Subdural Fluid Complicating Meningitis Due to Hemophilus Influenzae Type B: Preliminary Report. *New England J. Med.* 242: 20, 1950.
14. Arnold, G. G.: Purulent and Serous Subdural Effusions in the Course of Purulent Meningitis. *J. Ped.* 39: 191, 1951.
15. Smith, M. H. D., Dormont, R. E. and Frather, G. W.: Subdural Effusions Complicating Bacterial Meningitis. *Pediatrics* 7: 34, 1951.

Our Geriatric Problem

C. WYATT NORVELL, M. D.

New Castle

One of the major problems confronting the medical profession and more especially the general practitioner is the number of old people that are now present in the Western Civilization. This aging of the population began over fifty years ago, and there has been a steady increase in the percentage in the past fifteen to twenty years. The social, political, and economic changes that have taken place during the last half century have had an adverse effect upon these older people. Whereas, the population and the work was predominately agriculture and rural fifty years ago, there have been changes to an industrial and an urban-type of living. There has been a growing tendency for the past twenty to twenty-five years of having compulsory retirement at the age of sixty-five and sometimes earlier. This has come about through our new and fair deal type of government. Aging is a part of living. All living matter ages, and as it ages, changes. Aging involves everyone of the innumerable aspects of life. It begins with conception and ends only with death. To youth and middle age the afflictions of the old often appear intolerable enough to dampen all desire for life, but the truth is more as Euripides puts it, quote, "Old men's prayers for death are lying prayers."

Major Difficult Problems

One of the most difficult problems with which the family physician has to deal is the old person who feels that they are no longer wanted, that they are no longer useful, and that they no longer can contribute anything to civilization. Because it would seem that the medical profession is only half conscious of what the increase in the average life span means to their civilization, it is hoped that by and through this paper there will be a stimulation of a desire to try to work from both the physical and the psychological aspects. In other words, sound psychosomatic geriatrics.

All of you have heard the old statement, "that the operation was a success, but the patient died." That can be transposed around and say "that in treating the elder-

ly the disease was treated, but the patient grew steadily worse and died." "Meddlesome diagnostic procedures in the elderly should be avoided and scientific curiosity should be sublimated to art." A patient of eighty years of age with a severe arteriosclerotic heart who, also, has a napkin-ring carcinoma of the descending colon without obstruction certainly is not a candidate for exploration with colostomy and a probable life expectancy of three or four years. The individual in all probabilities would live those three or four years if nothing was done except give him some type of bland lubricant, such as mineral oil, to keep the intestinal tract well lubricated so that the fecal material can pass easily.

Minor Complaints Important

One of the saddest things that is seen in medicine is the physician who treats the disease and not the patient, and nowhere is that more important than in the treatment of the geriatric patient. Many elderly patients bring minor complaints to their physician. Now minor facts just do not get our attention, but they may be the caution light of a later serious condition. The family physician can practice preventive medicine even in his geriatric practice. Many times the elderly patient is helped more by a physician who knows less scientific medicine, but who knows how to impart a feeling of interest in the patient's many complaints. This is the art of medicine. This rapport should be established between the physician and the elderly patient whether the disease to be treated is an acute pneumonia or whether it is chronic constipation.

Nursing Homes Preferred

Many times the geriatric patient can be better treated at home or in a nursing home than in a hospital where the patient is confused and frightened by the unfamiliar surroundings of the hospital. More and better convalescent or nursing homes are needed for the treatment and care of these elderly patients because they respond much better to treatment if they are in surroundings that more closely resemble the situations that they have through the years learned to identify as an atmosphere of a home. Everybody in

attendance, doctors, nurses, orderlies, and relatives, should understand quite clearly that the comfort of the patient takes precedence over all other factors.

Heart Conditions

The hearts of many older people are far from normal, but they are often quite good enough for the work required of them. If, when examining an elderly patient, an occasional extra systole is heard and the patient has not complained of this condition, it is believed that this abnormality should not be mentioned to the patient because it will only add to their already over-taxed mental faculties in a way that will be detrimental to the individual's normal life. If, however, the elderly patient complains of the jumping or jerking in the chest or a sense of choking in the throat and these extra systoles are coming in showers, an attempt should be made to regulate the hearts of these patients to as near a normal rhythm as possible through the use of quinidine and/or digitalis in proper doses. Older patients who suffer an infarct and who do well for a few days should be allowed up a little more quickly than younger patients, and if failure has not developed two weeks is not too early. The elderly patient does not have the comeback that the younger patient has after lengthy periods of being bedfast.

Pulmonary Infections

Older people are particularly susceptible to pulmonary infections, and they very often produce very mild constitutional reactions. Therefore, when an elderly patient is seen with a very minimum amount of signs and symptoms of a pulmonary congestion immediately antibiotics and especially penicillin should be prescribed and used so as to clear up the acute infection as rapidly as possible. Here a word could be said concerning the best friend the physician has in the treatment of the elderly patient and that friend is oxygen. It is astounding how many times a physician uses nothing but oxygen in treating an elderly patient who is in serious respiratory difficulty and how rapidly the individual will recover from their illness. Elderly patients will many times do much better if they know that oxygen is available when it is necessary for its use and when individuals have a severe pulmonary emphysema, they can very well take care of their own episodes

of acute respiratory insufficiency by administering their own oxygen.

Value of Prostatectomy

New techniques that have been developed by the urinary surgeon in the treatment of prostatic disease in the elderly man have greatly aided the family physician in the treatment of both incontinence and in acute retention. These new surgical techniques relieve the condition and get these older men back on their feet rapidly, which not only aids the general practitioner but, also, the family and friends of these men. As one elderly patient put it, "I had my prostatic operation at 84. I am now 89 and am the best steer that is in Henry County."

Treatment of Arthritis

In diseases of bones and joints hypertrophic arthritis is the most troublesome of these abnormalities. The elderly patient will do very well in sleeping on a hard bed and avoid sleeping in the feather-bed or sitting in the over-stuffed chair. A point of great importance in the treatment is that the individual must be kept active. If the elderly patient is obese, this obesity should be reduced. When weight reduction is attempted in the elderly patient, adequate amounts of protein must be included in the diet. Activity and a mixed diet are advised for these patients.

Constipation

Another common complaint is the geriatric patient with the sluggish intestinal tract. The family physician has swung from purging to no laxative at all. Somewhere between these two extremes will be found the sensible point. These colons are actually sluggish and stasis is poorly tolerated by the elderly patient. Some mild laxative such as milk of magnesia with or without a sweet cascara are indicated. These patients worry about their morning evacuations and develop psychosomatic symptoms which can only be relieved by a physician who listens well and acts to relieve their complaints.

Pruritis

A word concerning the complaint of pruritis of the skin: When the elastic tissue becomes depleted the normal oils that are present in earlier life are decreased or almost entirely absent. Soap and warm water remove more oils, therefore, they develop a senile pruritis. The

skin of an elderly patient must be treated like an infant's skin. Olive oil or mineral oil should be applied after each bath.

Many of these patients develop nutritional problems because of the poor absorption of minerals, vitamins, and other building stones of blood. Mann and Stare in J.A.M.A., 1950, believe "it is well established that deficiency of a single essential nutrient rarely occurs in human medicine." This is especially true in the geriatric treatment of anemias. Again because of poor absorption the response to oral therapy is often not very good. The use of combinations of vitamin B-12, folic acid and liver extract by intramuscular injection is very often followed by excellent results.

Mental Changes

There are lastly many mental changes in the aging processes. Elderly patients differ both intellectually and emotionally from what they are in early and middle maturity. The changes in the psyche is subtle and continuous just as the changes which are more readily observed in the soma. In the psyche the changes which develop are relative in the somatic age. In the geriatric patient there is even more irregularity in individual variation in the psychologic aging than in the somatic aging. Personality changes in the aging human are more quantitative than qualitative. There are certain emotional and normal characteristic changes which resemble mental changes. There is more ability to color or subdue certain hereditary and environmental characteristics in youth and middle age. With the arrival of 3 score and 10, these inhibitions are lost or blunted and the individual is diagnosed as a senile psychotic. There is a difference in senile psycho-pathological changes and senile psycho-physiological changes. Here is where the family physician must step in and stop the heartless placing of the aged in asylums when they are not psychotic.

All of the above mentioned complaints or diseases are only an extremely small

portion of all of the conditions treated in geriatric medicine. Why are they mentioned? America and especially the American family physician must become interested in this group of patients. The results of treatment are not as dramatic as the preventive triple immunization in babies, but we need to keep these patients at the very best of their capabilities. We need our older citizens and we want them to be able to make the fullest use of their capabilities for a useful life, not the burden they so often are to themselves and to their families.

Codex Atlanticus

"The age as it flies glides secretly and deceives one another; nothing is more fleeting than the years, but he who sows virtue reaps honor."

"Wrongfully do men lament the flight of time, accusing it of being too swift, and not perceiving that its period is yet sufficient; but good memory wherewith Nature has endowed us causes everything long past to seem present."

"In youth acquire that which may requite you for the deprivations of old age; and if you are mindful that old age has wisdom for its food, you will so exert yourself in youth, that your old age will not lack sustenance."

"While I thought that I was learning how to live, I have been learning how to die."

"Life well spent is long."

(Codex Atlanticus by Leonardo Da Vinci).

Summary

1. The treatment of the elderly patient is one of the major problems confronting the medical profession.

2. Some suggestions for a practical approach to the treatment of the aged are mentioned.

3. It is hoped by the author that new and greater interest will be stimulated toward the treatment of the geriatric patient.

Urinary Stress Incontinence in Women

ROBERT LICH, JR., M. D.,

JOSEPH E. MAURER, M. D.

Louisville

In recent months we have heard much of relieving urinary stress incontinence particularly in women. This is an interesting subject because of the unexpected mechanical simplicity of stress incontinence in contradistinction to our previously held concepts. For this newer knowledge we are indebted to Dr. S. Richard Muellner of Boston for his brilliant clinical studies on bladder physiology.

Definition and Methods of Relief

Urinary stress incontinence is defined as the uncontrollable loss of urine from the bladder during episodes of sudden intra-abdominal pressure (ie., coughing, sneezing, stumbling, laughing, etc.) unassociated with neurogenic intrinsic or inflammatory disease of the bladder. The primary prerequisite for the successful relief of urinary stress incontinence is an accurate preoperative diagnosis. It is quite apparent in reviewing the literature that the stimulus in the past for the introduction of a multitude of operative procedures was based falsely on the assumption of a surgical failure whereas often times the error lay actually in an inaccurate preoperative diagnosis. It is true too that the earlier operations were directed toward strengthening or tightening the sphincter of the bladder which in the present light was an erroneous etiological concept.

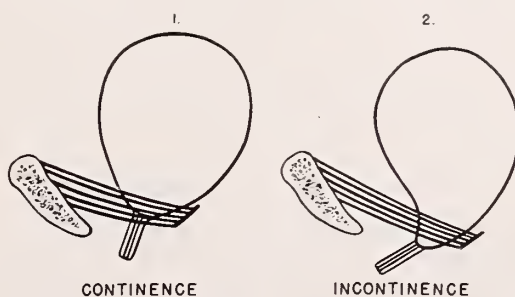
Normal and Abnormal Control of Bladder

The partially filled bladder remains as an oblate spheroid at all times irrespective of the intravesical pressure. Hence, the intravesical pressure is equally distributed throughout circumference of the bladder. However, in individuals suffering with true urinary stress incontinence during periods of increased intravesical pressure the bladder is altered from its normal oblate spheroidal contour (Figures 1, 2). During these periods of increased intravesical pressure there is a downward and posterior displacement of the internal urethral meatus so that the neck of the

bladder forms a conical deformity. The apex of this deformity is limited by the urethral sphincter and thus this structure takes the full impact of the intravesical pressure and since the greatly increased magnitude of this pressure concentrates on the apex the urethral sphincter is thus forced by this hydraulic wedge into momentary incompetence. Hence, the solution to the problem of true urinary stress incontinence is to re-establish the normal vesical contour which will persist both during rest and increased intravesical tension. Any operation that is aimed at relieving urinary stress incontinence must then provide adequate and permanent fixation of the neck of the bladder. The operative procedure must firmly hold the proximal urethra in the position that this structure assumes during rest. Several operations have been advocated recently and all provide a means of accomplishing the same purpose.

Importance of Accurate Diagnosis

The importance of accurate diagnosis must be emphasized and re-emphasized. The three vesical findings that must be present if surgical success in stress incontinence is to be achieved are: (1) a normal bladder capacity of 350+ cc., (2) the absence of residual urine and (3) the absence of urinary symptoms other than an incontinence associated with periods of increased intra-abdominal pressure. An accurate urological survey including cystoscopy is mandatory. The presence of a



Figures 1 and 2

The appearance of the normal bladder with continence as compared with the bladder deformity of the incontinent bladder.

From the Department of Surgery, Section of Urology, University of Louisville School of Medicine.

Read before the Kentucky Surgical Society, French Lick, Indiana, May 24, 1952.

neurological basis for the urinary incontinence must be considered and eliminated. With the above bladder findings positive and no demonstrable cause for the incontinence demonstrable one may then consider further steps to determine the patient's opportunity for surgical relief.

Procedure of Examination

Our procedure of examination is conducted by catheterizing the patient, collecting the urine and filling the bladder with sterile water to capacity (normally 350+ cc.). Some of the sterile water is permitted to escape from the bladder leaving 200 cc. of water in the bladder in order to use this for subsequent tests. We observe leakage on coughing and attempt prevention by supporting (not elevating) the base and neck of the bladder while the patient coughs. This latter procedure is accomplished by using two fingers in the vagina (one on either side of the vesical neck) and holding the bladder neck so that it does not move posteriorly and caudad during the instant of increased intra-abdominal pressure.

Radiological Examination

Radiological examination is essential, simple and accurate. The medium used is sterile 5 per cent sodium iodide which can be prepared in any hospital. The bladder is drained per catheter and 150 cc. of 5 per cent sodium iodide solution is introduced into the bladder and the catheter withdrawn. The films are made with the patient in the upright position and the first film of the bladder is made with the patient relaxed and the second film made with the patient straining and thus maintaining as much increased intra-abdominal pressure as possible. Normally the descent of the vesical neck is less than three-fourths of an inch and when this descent is greater than one and one-fourth inches it can be said with certainty that the patient is suffering a true urinary incontinence amenable to surgery. (Figure 3.)

Surgical Procedures Numerous

The surgical procedures for relieving urinary stress incontinence are numerous. All acceptable operative procedures must support the base and neck of the bladder and not permit vesical ptosis during periods of increased intra-abdominal pressure. In our opinion the failure of the



Figure 3

Cystograms showing the marked bladder neck drop with increased intra-abdominal tension in true urinary stress incontinence.

vaginal procedure is due to a mechanically inefficient fascial suspension and the use of qualitatively unpredictable fascia. It is for this reason that we advocate the use of a method which utilizes supporting fascia that can be relied upon for strength and its texture that can be readily visualized at the time of operation. We are not presenting a new procedure, but we have found the method described by Terence Millin to be most satisfactory. A single recurrence mars our series, but this occurred some weeks after the establishment of perfect continence and the fascial disruption followed heavy lifting in this hugely obese woman who had four previous unsuccessful vaginal operations. We are of the opinion that our failure was due to inexperience in forming sufficiently heavy fascial supports at the time of operation. It was our first experience with this operation.

Surgical Procedure

The bladder is emptied by inserting an 18 F. Foley catheter with a 5 cc. bag and this catheter is then retained. A transverse suprapubic incision is made to the external aponeurosis. Two straps (1 cm.

wide) are fashioned from the rectus and the external oblique aponeurosis, being left attached at their lateral extremities (Figure 4). The rectus muscles are separated in the midline and the retropubic space entered. The urethral catheter is palpated and the vesical neck area identified by the catheter bag. By careful sponge dissection, the lateral fossae of the urethral area is opened. At this point the urethra with its inlying catheter is grasped by a long Babcock forceps and the urethra is underrun, at its junction with the bladder, using a Mixer clamp (Figure 5).

When one or more previous anterior colporrhaphies have been done, there may be rather dense adhesions between the vagina and the bladder, but the dissection is not difficult. The previously prepared fascial strips are then brought lateral to the recti and threaded under the vesical neck from

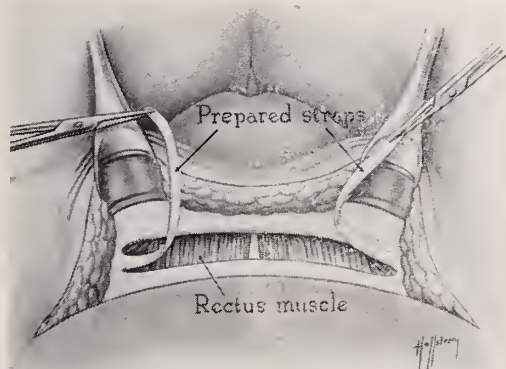


Figure 4

The suprapubic transverse incision with the prepared fascial straps.

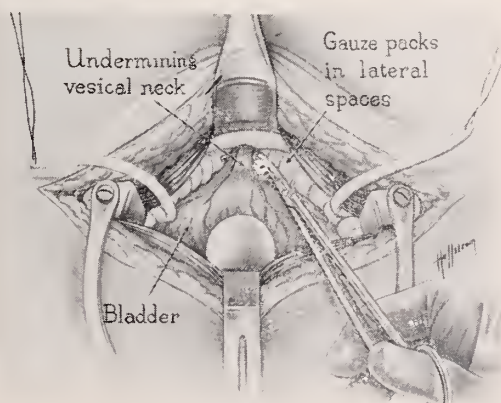


Figure 5

Tunneling of the urethra in preparation for fascial insertion.

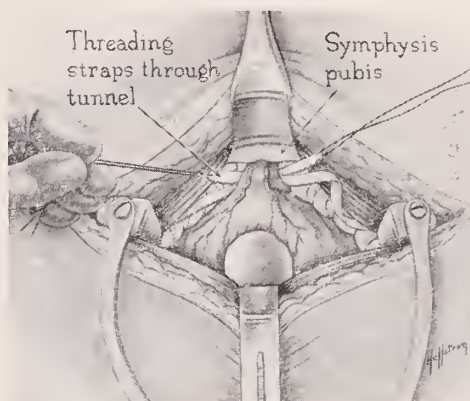


Figure 6

The fascial straps are introduced below the urethra.

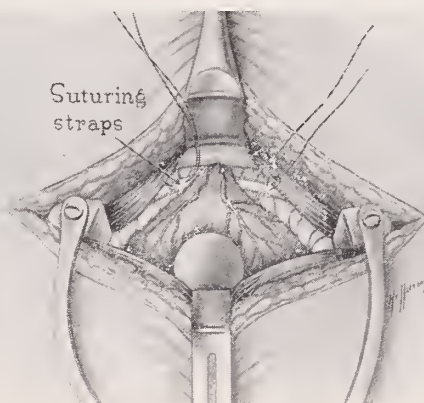


Figure 7

The fascial straps are sewn to one another after the tension has been adjusted.

each side and the tension adjusted (Figure 6). The tension should be sufficient to elevate the vesical neck to its normal position and kinking of the urethra must be avoided. Usually the bladder is almost in its normal position when the patient is anesthetized and in mild Trendelenburg position. The straps are secured one to the other with three or four silk sutures at each side (Figure 7). A rubber tissue drain is placed to the space of Retzius and the fascial borders of the abdominal incision approximated. The skin is closed and a dressing applied.

The catheter is connected to the bedside bottle for continuous vesical drainage which is maintained for five days. The rubber tissue drain is removed on the third day after operation. The average period of hospitalization is less than ten days.

Summary

Some of the salient aspects of the mechanism of true stress incontinence are discussed. An operative method for correcting urinary stress incontinence in women is presented.

BIBLIOGRAPHY

Millin, T. J.: *Retropubic Urinary Surgery*, Williams and Wilkins, Baltimore, 1947.

Muellner, S. R.: *Physiology of micturition: Its clinical application*, Bull. New England M. Center 12: 93-97, June 1950.

Traumatic Diaphragmatic Hernia with Acute Intestinal Obstruction

A Report of Three Cases

JAMES B. HOLLOWAY, M. D. *

Lexington

Traumatic diaphragmatic hernia as one of the causative factors in intestinal obstruction presents special problems in diagnosis and treatment. These problems, together with the serious nature of intestinal obstruction, challenge the surgeon to reduce the mortality and morbidity of this disease and restore the patient to health. Acute mechanical intestinal obstruction, despite its frequency, is one of the most lethal surgical diseases encountered today. This remains true in spite of the use of electrolyte and fluid replacement, the introduction of the antibiotics and intestinal intubation.

Type of Hernias Reported

The following three cases of traumatic diaphragmatic hernia with acute mechanical intestinal obstruction are presented in an effort to high light some of the difficulties attendant upon the diagnosis and treatment of this condition. It is not the purpose of this report to discuss the etiology, symptoms and management of the various congenital diaphragmatic herniae. Other authors have exhaustively covered this aspect (1) (2) (3). These particular herniae are found either in the parahiatal area, in the foramen of Morgagni or at the foramen of Bochdalek. With the exception of the latter they possess a true hernial sac, or they present the sliding type. While in contrast traumatic diaphragmatic herniae have no sac and may be found anywhere in the diaphragm. Usually they are on the left side since the

mass of liver on the right side tends to prevent herniation through any but the largest acquired defect in this leaf of the diaphragm.

The hernia mass may contain a single abdominal organ or a combination of several of the abdominal organs such as, the stomach, the omentum, the transverse colon, the small bowel, the spleen or the liver. The number and variety of the organs will depend on the size and the location of the hernia, as well as its duration. The symptoms may be vague and slowly progressive, or silent for years. Then suddenly, due to some change in dynamics, a catastrophe occurs requiring prompt action. Immediate intervention may be necessary to relieve the patient of pain and to prevent the possible loss of intra-abdominal organs due to strangulation of their blood supply.

Surgical intervention is complicated by the choice of two approaches, trans-abdominal or trans-thoracic. Each method of approach has advantages and champions. Harrington (1) in Rochester and Farrar (4) in Memphis advocate the abdominal approach, whereas, Sweet (5) (6) (7) and others feel that best results are obtained by a transpleural repair. With notable exceptions (8) (9) discussions of these methods are concerned with the elective repair of such herniae. The manner of emergency repair is not considered. The patient whose hernia is complicated by acute intestinal obstruction with its attendant fluid loss, toxemia, and distended edematous incarcerated bowel presents the surgeon with serious problems. Each of the following cases presented problems unique to this disease.

From V. A. Hospital, Chamblee, Ga. Published with the permission of the Chief Director, Department of Medicine and Surgery, Veterans Administration, who assumes no responsibility for the opinions expressed or conclusions drawn by the authors.

*Associate Surgeon, The Lexington Clinic, Lexington, Kentucky.

Case 1—E. L. D.

A 28-year old white man was admitted to the Lawson Veterans Administration Hospital on 9-5-49 complaining of the sudden onset five days previously of cramping periumbilical pain accompanied by nausea and vomiting. The pain began in the evening after a day of labor in the hay fields and he had been unable to retain food since the onset. Prior to admission he had been hospitalized elsewhere and given gastric suction and intravenous fluids for 48 hours. No bowel movements and no flatus had been noted since the onset of the symptoms. The past history was not remarkable except that the patient had been a professional boxer. Physical examination revealed a well developed young white man in acute abdominal distress. His temperature was 101.4° F., the blood pressure was 144 mm. hg. systolic over 80 mm. hg. diastolic. The pulse was 88 per minute, the respirations were 24 per minute. The other positive findings were limited to the abdomen, where there was moderate tenderness over the lower abdomen but no rigidity. Peristalsis was hypoactive. The hemoglobin was 12.1 grams. The white blood cell count was 12,000 per cu. mm. with 85 per cent neutrophils. The urinalysis was negative. X-rays of the chest (Fig. 1A) and abdomen were consistent with mechanical obstruction of the left colon.

For immediate decompression a caecostomy was done. A barium enema on the first postoperative day after caecostomy demonstrated a diaphragmatic hernia with both stomach and colon in the thoracic cavity. (Fig. 1B) Following the decompression the patient did well. Ten days following the caecostomy the hernia was approached and repaired transthoracically without difficulty. Postoperatively the course was benign. The wound healed per primum. The patient has been well and asymptomatic since operation.

Comment

The patient was seen five days after the onset of complete large bowel obstruction. He was in circulatory collapse and electrolyte imbalance upon admission. Fecal vomiting was present. The restoration of lost water and salt and the decompression and rest of the distended bowel was of primary concern. Intestinal intubation with the long intestinal tube and caecostomy served to relieve his acute obstruction and to prepare him for a major operative procedure. In addition, his water,

salt, proteins and vitamins were replaced by the intravenous route during the first three hospital days and by oral intake thereafter. Ten days after decompression with the patient hydrated and in positive electrolyte balance the transthoracic approach was used for the reduction

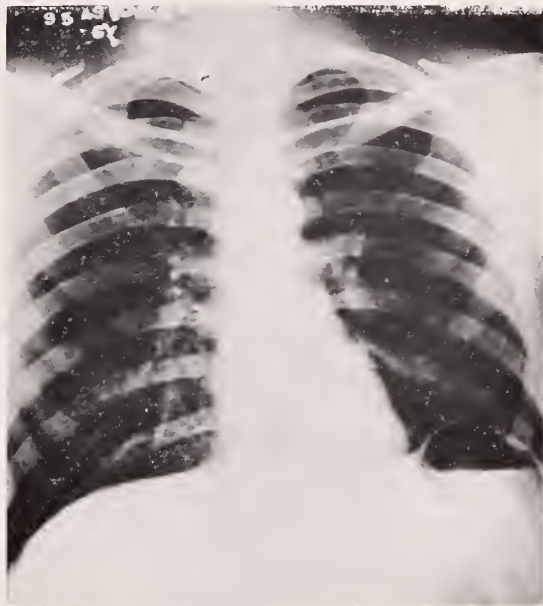


Figure 1-A

Note prominent "gastric air bubble" which was in reality the hernia sac and contents.



Figure 1-B

Left oblique barium enema with Levin tube in place demonstrating colon and stomach above diaphragm with obstruction at the diaphragmatic level.

and repair of the hernia. On the original emergency PA x-ray of the chest (Figure 1A) the diagnosis was not suspected despite the prominent "gastric-air bubble." Not until an oblique film of the barium enema, (Figure 1B) was made was the true diagnosis evident. Carcinoma of the splenic flexure was suspected prior to the barium enema.

Upon admission no operative procedure was indicated other than emergency decompression. A major abdominal or thoracic exploration would not have been tolerated. At the time of definitive repair the extent of the dense adhesions between the abdominal organs and the lung and parietal pleura was remarkable. The diaphragmatic ring was released from the hernial contents with some difficulty. An abdominal approach in the face of the incarceration and adhesions would have been indeed a formidable procedure fraught with danger. Transthoracic approach gave wide exposure and easy access to the incarcerated organs with a relatively easy reduction and repair. The etiology was considered to be a blow or blows received during his career as a professional fighter.

Case 2—C. E. C.

A 28-year old colored man was transferred to Lawson V. A. Hospital from another hospital on 1-21-50 with a diagnosis of left lower lobe pneumonia. The patient's chief complaint was severe left upper abdominal pain of five hours duration unrelieved by sedation. The present illness had begun at noon on the day of admission when he lifted a heavy motor block, heard a rumbling in the abdomen followed in a few minutes by continuous epigastric pain. Vomiting began three hours after the onset. In 1948 the patient had been stabbed with a knife in the left chest with no known residual defects. A chest roentgenogram three months prior to admission was said to have been normal. Physical examination revealed a well developed and well nourished young man in acute distress. His temperature was 98.6° F. The pulse was 80 per minute, the blood pressure was 120 mm. hg. systolic over 75 mm. hg. diastolic. He was most comfortable lying on the right side with the leg flexed. The respirations were shallow with splinting of the left chest. Dullness to percussion and decreased breath sounds were noted over the left hemithorax. No rales were heard in the left lung field. The right lung field was not remarkable. There was no evidence of peritoneal irritation. There was

an old scar in left posterior axillary line at the eighth interspace. Roentgenograms taken on admission (Figure 2A) indicated that the left diaphragm was elevated, that the heart was shifted to the right, and that there were small bowel segments with



Figure 2-A

Note cardiac shadow shifted to right and dilated loops of bowel at the cardio-phrenic angle.



Figure 2-B

Barium enema with Harris tube in place showing colon in the chest and the stomach in the normal position.

fluid levels above the diaphragm. A diagnosis of large traumatic incarcerated diaphragmatic hernia was made. An immediate transthoracic repair was carried out. The patient's postoperative course was benign.

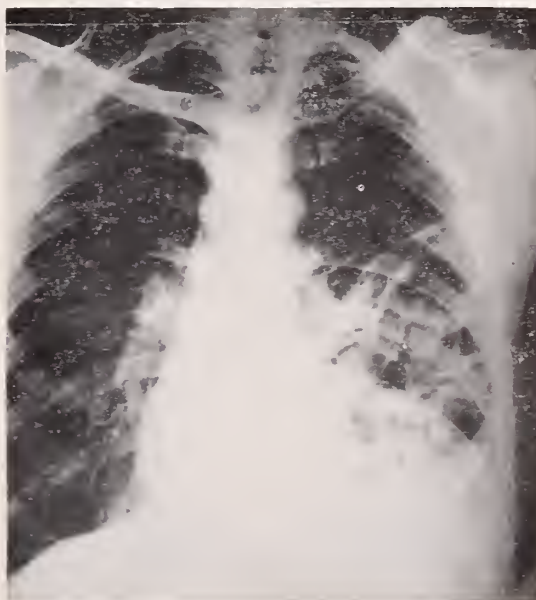
Comment

This acute hernia was readily reduced and repaired by a transthoracic approach. The patient was seen early in the course of his illness and thus tolerated a major thoracic procedure without difficulty. The author was impressed with the ease of reduction and repair made possible by the thoracic approach. Although there were no dense adhesions between the abdominal and thoracic organs, reduction was felt to be safer and easier by pressure from above than by traction from below.

Case 3—E. M. M.

A 48-year old man had been in a train accident ten years prior to admission at which time he had lost both legs below the knee and sustained fractures of several ribs. He had been in this hospital several times for treatment of the below-knee stumps and during each of his admissions there was thought to be an eventration of the left diaphragm. He received no treatment for this, and in successive

admissions a gradual increase was noted in the eventration (Figure 3A & B). He was admitted again on 5-27-51 with severe pain in the abdomen of 24 hours duration. He had apparently been in periphero-vascular collapse, which began shortly after the onset of this pain. Roentgenograms showed a complete collapse of the left lung, a shift of the mediastinum to the right, and many loops of dilated small bowel in the left chest and in the abdomen. A tube was placed in the stomach and injected with lipiodol and the stomach was demonstrated to be in the left chest (Figure 3C). It was evident that the long present eventration was in reality a true herniation which was increasing and had finally caused intestinal obstruction. A trans-abdominal exploration was done through an upper midline incision and the small bowel easily reduced. The stomach could not be reduced through this incision due to many adhesions between the stomach and the thoracic contents. The patient was not in condition to tolerate a combined thoraco-abdominal incision so the wound was closed. On the fifteenth postoperative day he had a wound dehiscence which was closed. The wound then healed without incident. On 7-23-51 through a thoracotomy incision the diaphragmatic hernia was repaired without difficulty. The wound healed kindly and the patient is now asymptomatic.



Figures 3-A and 3-B

Fig. 3-A and 3-B show progression of the diaphragmatic hernia thought preoperatively to be only an eventration of the diaphragm.

Comment

In this particular case, acute small bowel obstruction made emergency surgery mandatory. The least surgery to release the obstruction effectively was thought to be the best surgery. Accordingly, a midline abdominal incision was rapidly made through which the obstruction was relieved, but through which the hernia could not be easily reduced or repaired. Consequently, a second operation was necessary. The abdominal approach was a lifesaving measure for this patient. Had an intestinal resection been necessary, it could have been done with greater ease and with less time and trauma than would have accompanied either the combined thoraco-abdominal approach or the single thoracic incision. The hernia could have been repaired during the emergency operation had the patient's condition permitted. This case illustrates the fact that these herniae, like any other herniae, should be repaired as an elective procedure. Indeed the danger potential of diaphragmatic herniae is much higher than that of inguinal herniae.

Summary

When traumatic diaphragmatic herniae are complicated by acute mechanical obstruction, the treatment of the obstruction is of primary importance. Definitive treatment should be directed toward correction of the obstruction and the relief of the resulting electrolyte imbalance and

toxemia. When these conditions have been corrected, repair of the hernia may be considered. If these cases are seen early enough in their course for the patient to be in good condition, relief from obstruction and repair of the hernia can be done in one operation. The repair of diaphragmatic herniae is best accomplished by the thoracic approach. Transthoracically the diaphragmatic movements may be controlled, the operative field is close and readily accessible instead of up under the rib cage. Occasionally, however, one may be confronted with a problem in which a patient is desperately ill, and in which a procedure must be done with as little blood loss, time, and trauma as possible. Here one may elect to use the abdominal approach. In this manner the obstruction may be relieved and definite surgery left for a more optimum time. When obstruction of the large bowel is present and primary decompression is indicated prior to definitive therapy, the abdominal approach is utilized to perform a proximal cecostomy or colostomy; the transthoracic repair can wait upon an optimal interval. Adequate pre and postoperative decompression of the intestines by naso-gastric tubes, the use of antibiotics, electrolyte and fluid replacement, though not dwelt upon here, are of paramount importance.

Conclusions

(1) Traumatic diaphragmatic herniae should be repaired when found to avoid the possible complication of intestinal obstruction.

(2) The transthoracic approach offers the greatest ease of repair with no added risk to the patient.

(3) Occasional cases may require abdominal colostomy or caecostomy as a preliminary decompressive measure.

BIBLIOGRAPHY

1. Harrington, Stuart W.—Various Types of Diaphragmatic Hernia Treated Surgically: Report of 430 Cases. *S. G. O.* 86, 735-757, 1948.
2. Higgins, W. H.—The Medical Aspects of Hiatal Hernia. *Southern Medical Journal*, 26, 273-276, 1943.
3. Ladd and Gross—Abdominal Surgery of Infancy and Childhood, 333-34 (Book).
4. Ferrar et al.—In preparation.
5. Sweet, Richard H.—Esophageal Hiatal Hernia of the Diaphragm: The Anatomical Characteristic Technic of Repair, and Results of Treatment in 111 Consecutive Cases. *Ann. Surg.* 155, 5-12, 1952.
6. Hughes, E. et al.—Traumatic Diaphragmatic Hernia. *J. Thoracic Surgery* 17, 99-110, 1948.
7. Adams, R. and Lee, W. F.—Clinical Report of 34 Cases of Diaphragmatic Hernia. *Surg. Cl. of North America*, 26, 742-750, 1946.
8. Orr, I. M.—Acute Diaphragmatic Hernia Associated with Intestinal Obstruction. *British Journal of Surgery* 34, 96-99, 1946.
9. Wangenstein, O. H.—Intestinal Obstruction (Book) 366-368.



Figure 3-C

Abdominal film with Harris tube in place demonstrating the stomach in the thoracic cavity.

SPECIAL ARTICLES

Kentucky—The Progenitor of Pioneer Doctors

LEWIS J. MOORMAN, M. D.

Oklahoma City, Oklahoma

"When the Father of History read his immortal volumes before the Grecian hosts assembled at the Olympic games, we are told that the countless throng shed tears of sorrow and of joy at the touching tale of the wrongs and triumphs of their native land. The story of their ancestors, related in the simple style of Herodotus, sounded like far-off music in their ears, and seemed to strike the very tenderest chord that thrills in the human heart . . . Each citizen took to himself a portion of the common glory of the State, and fancied he saw his own excellence painted in the heroic exploits and literary achievements of departed patriots and poets."

These words were spoken by Robert Wickliffe, Jr., at Lexington, Kentucky, in dedication of the New Medical Hall at Transylvania University. The date was July 4, 1839. This was twelve years before the Kentucky State Medical Association was founded in 1851. But what is more remarkable, Kentucky doctors had come together for the purpose of pioneering in medical and surgical skills and in medical education long before the State Organization was effected. To be exact they had founded the medical department of Transylvania University as early as 1799. Though a hundred and twelve years have passed since Robert Wickliffe addressed his fellow Kentuckians about better facilities for the further propagation of pioneer doctors, his eloquent introduction seems equally appropriate for this occasion which marks another milestone in the progress of medicine and the welfare of this great commonwealth.

In the light of what has been said and in behalf of historic justice, the title of this discourse comes alive. It is truly revelatory and its implications readily demonstrable. With a firm faith in its significance and a personal stake in its

elaboration I have accepted the challenge and humbly stand before you, wishing for a better qualified medical historian and an abler advocate. But in the absence of volunteers and in view of the fact that I am a native son, likewise a child of Kentucky medical progenitors and having been a pioneer doctor on the middle border, I trust you will permit me to blend my own experiences with the significant facts and events resulting from more than a century and a half of medical education in Kentucky.

It must be remembered that history at best is fragmentary and the record often limited by time and space as on this particular occasion. With these limitations in mind I have tried to capture the spirit of this historic period with the hope that it may illumine the broad and simple statements which the limits of my assignment require, and perhaps stamp them indelibly upon your minds and possibly inspire someone like your own Emmet F. Horine to fill the gaps and publish the full story with documented authority.

Kentucky Pioneer Doctors

It must be admitted that Kentucky became the home of pioneer doctors before it assumed the roll of professional parenthood. They came through the Cumberland Gap and over the Wilderness Road and down the rivers to become important spokes in the early settler's wheel of fortune. It must never be forgotten that the preceptor-type of medical education (creditable for the time) was going on in doctors' offices and homes where excellent young men were chosen with knowledge and foresight far exceeding the efficacy of modern aptitude tests. Soon Lexington became the hub of this restless and ambitious new civilization. This hamlet blessed by bluegrass and Silurian limestone became the exponent of culture and refinement and early it was known as the Athens of the West. Promptly pioneer doctors were forging ahead with an urge

similar to the sleepless, critical spirit animating the Greek physicians of the Fifth Century, B. C., when medical thought exceeding the reason of Socrates, initiated the age of enlightenment and pursued its course under the Hippocratic Oath.

These Kentucky physicians not only pioneered in medicine and surgery but in medical education as well. Doctor Samuel Brown, the first medical school professor west of the Alleghenies, and Doctor Ephraim McDowell, who became the first Ovariectomist in the world, were of common Virginia background and having been fast friends at the University of Edinburgh, were pursuing their mutual interests when the medical school of Transylvania University was founded. Doctor McDowell lived at Danville, only a few miles away and while he is not listed by Doctor Robert Peter as among the professors of Transylvania University, his biographer, Doctor John D. Jackson, says he lectured to large classes for twenty-five years. It is easy to imagine these two old cronies repeatedly in conference over scientific progress and the dawn of formal medical education in the west. Vaguely they were dreaming of the pageant of progress we have witnessed. Before dismissing this concept of Kentucky as the home of pioneer doctors, may I call attention to the fact that Doctor Walter Brashear in 1806 at Bardstown, Kentucky, successfully performed the operation for amputation at the hip; the first in the surgical annals of the world. Three years later, Doctor McDowell followed with his world first. These daring adventurers in major surgery were without the benefit of anaesthesia, and they took place three quarters of a century before Lord Lister supplied the light that ultimately lifted surgery from the purgatory of laudable pus into the paradise of aseptic technique. In 1879 when the State Medical Association dedicated the McDowell Monument at Danville it was estimated that because of his courage in the performance of his first Ovariectomy in the backwoods of America, "forty thousand years of human life had been added to the women of the world. If this were so in 1879 it is safe to claim a hundred thousand in 1951. These events are mentioned because they helped to activate the spirit of medical education, so important in the history of Kentucky.

Transylvania University

The Medical Department of Transylvania University was founded with re-

markable vision and soon became famous because of its faculty and its exceptional fecundity! Its founders anticipated a great need and courageously assumed a stupendous task.

Before the Medical Department of Transylvania University was discontinued, it had pursued medical education for a period of thirty-nine years. During this time its professors had instructed 6,456 pupils and had graduated 1,881 of this number. These pupils had been drawn chiefly from the Ohio and Mississippi valleys. It is reasonable to believe that with few exceptions they returned to their own communities to practice and since in many sections a medical degree was not required, many of the undergraduates practiced with relative proficiency. Neither Brown nor McDowell had graduated when they assumed the responsibilities of practice.

Many of these men cast their lots with the early settlers on the fringe of advancing civilization where they made life relatively safe in log cabin and sodhouse communities, prepared the way for ever increasing populations and laid the foundations for sanitation and public health, so necessary for the uninterrupted march of commerce. The men who went out from Kentucky medical schools were not pioneering for gold and as Will Rogers once said, "They were not pioneering for spinach." They were pioneering in behalf of human weal. Though their memory has not been perpetuated in "marble temples and alabaster monuments," they were enshrined in the hearts of their people and history shall not forget them. By the turn of the last century the log cabin areas were largely settled but the dugout and the sod-house were still in vogue on the middle border particularly in Kansas, Oklahoma, and Texas. Pioneer doctors who had crisscrossed the plains in earlier days, blotting out the trails of the buffalo, the Indians, the scouts, the hunters, the trappers and traders in order to bring health to rancher and homesteader, were gradually giving way to more modern practices.

Louisville Medical Schools

In the meantime, the Louisville medical progenitors had become very prolific. The Medical Institute of Louisville, later the Medical Department of the University of Louisville, was founded in 1837. A number of the Transylvania professors moved to this city where they continued medical teaching. With this influx of medical

teachers, Louisville had a galaxy of great men in various branches of the medical sciences, some of whom became world renowned in the field of medical education and because of their published contributions to medical science. With untiring energy and enthusiasm, Louisville was giving birth to young doctors needed to speed the settlement of the great Southwest and to augment the supply in other areas. At the turn of the century, there were five regular proprietary medical schools in this city alone.

The history of these schools has been recorded in your State Medical Journal and in other publications. Simultaneously with growth of medical education in Louisville, schools had developed in other states but not without direct or indirect Kentucky influence. Hospitals, clinics, laboratories, research institutes, public health services and voluntary health agencies arose, throughout the land. The Southwest became a haven for the sick, and health resorts and sanatoria were developed. This movement increased the demand for doctors and Kentucky made its contribution in this field. In addition, textbooks and medical journals were being published by professors and graduates of the Kentucky schools. These exerted a widespread and important influence. At the present time there are forty or fifty recognized journals and bulletins published regularly in the southwestern states alone. It is safe to say that few of these escaped the Kentucky flavor.

Medical education moved rapidly as the country became more thickly settled. At the turn of the century the saturation point was approaching. The manifest destiny of proprietary medical education was running out. Reformers in the field of education were justly looking with suspicion upon the medical schools. Kentucky's Abraham Flexner, under the auspices of the Carnegie Foundation for the Advancement of Education, conducted swift inspections of these schools and recommended sweeping reforms.

Consolidation of Schools

To the everlasting credit of Kentucky's medical educators stands the fact that consolidation was effected before Flexner's arrival in Louisville and out of this action arose one great school, now known as the University of Louisville School of Medicine. In spite of the unfavorable aspects of the Flexner report, history

speaks well of the Kentucky schools and those who are now engaged in medical education should not be unmindful of the high purposes of many of those earlier teachers so conscious of the boundaries between mind and matter and so respectful of the art of medicine equally essential in both pioneer and modern practice.

The Author's Background

Please do not consider it presumptuous if I trouble you with a bit of my own background. I was a student at Georgetown, Kentucky, forty-six years after Doctor W. L. Sutton of that City became the first president of your State Medical Association. At the turn of the century, I was a student of medicine in Louisville. Every morning on the way to classes I passed the Filson Club and wondered what Colonel R. T. Durrett, President of the Club, would be taking down from the endless bookshelves on that day and what exciting stories he might find while I was struggling with my yet unlearned medical lessons. Often I have wondered what might have happened if I had been invited in and given a peep at pages that waited so long for my perusal.

Reminiscences

After graduation, I went West and practiced on the middle border with a team of Indian ponies, twenty miles from the nearest railroad where bookshelves were unknown. After I gave up country practice my Uncle, a resident of Louisville and member of the Filson Club, sent me "The History of the Medical Department of Transylvania University," by Doctor Robert Peter. This was a 1907 Filson Club publication and it contained an introduction by Colonel Durrett. When the covers were in shreds, the book was rebound but the reproductions of the portraits of Transylvania professors used for illustrations were withheld. Ephraim McDowell was added and in separate frames they hang opposite my bed. Every morning for years I have awakened with the original progenitors looking down upon me with paternal admonitions. If I arose with an unworthy impulse it was subjected to the query, "What would they think?" While I cannot claim full compliance, I knew the eyes of the masters were upon me as I tried to pass muster each day. Please check the names and as I call them, think of the challenge: Mc-

(Continued on page 79)

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

Raymond F. Dixon: - Associate Editor

L. H. South, M. D.: Book Review Editor

J. P. Sanford: - - - Managing Editor

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.

George G. Greene, M. D.

T. O. Meredith, M. D.

Rufus C. Alley, M. D.

R. Arnold Griswold, M. D.

William R. Miner, M. D.

Everett H. Baker, M. D.

William P. Hall, M. D.

Frank H. Moore, M. D.

Sam H. Black, M. D.

Emmet F. Horine, M. D.

James E. Moore, M. D.

James W. Bruce, M. D.

E. W. Jackson, M. D.

George W. Pedigo, Jr., M. D.

John L. Dixon, M. D.

William O. Johnson, M. D.

Alvin C. Poweleit, M. D.

Samuel H. Flowers, M. D.

James M. Keeton, M. D.

Winston U. Rutledge, M. D.

Carl H. Fortune, M. D.

Coleman J. McDevitt, M. D.

William L. Woolfolk, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville.....	President-Elect
Charles B. Johnson, Russell.....	Vice-President
W. O. Johnson, 605 Brown Building, Louisville.....	Vice-President
G. Y. Graves, Bowling Green.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1953
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1953
Third District De'mas M. Clardy, Hopkinsville.....	1953
Fourth District J. I. Greenwell, New Haven.....	1953
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. R. Cummings, Flemingsburg.....	1953
Tenth District J. Farra Van Meter, 183 N. Upper Street, Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1953
Twelfth District Carl Norfleet, Somerset.....	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman.....	1953
Fourteenth District Paul B. Hall, Paintsville.....	1953
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

WOULD YOU LIKE TO BE A COUNCILOR?

How would you like to be a member of the Council of the Kentucky State Medical Association?

Do you feel that membership on the Council brings prestige, influence, financial gain? Had you visualized the meetings of the Council as friendly, light-hearted affairs, sort of social gab-fests? If this or any part of it is your conception of what serving on the Council means, there is ample evidence you have missed the point.

Perhaps you will want to refresh your memory on the composition of the Council. The potential membership of the Council is 24, all elected by the House of Delegates. There are 15 councilors, one from each of the 15 districts. Other members include the president, president-elect, immediate past president, secretary and general manager, treasurer, speaker, vice-speaker, and the two delegates to the A.M.A. At present the actual membership is 22 because the current A.M.A. delegates are entitled to attend on two accounts.

The Council functions as the interim governing body of the Association between the meetings of the House of Delegates and is responsible to the House. It becomes readily apparent that administering the affairs of a growing association with an expanding program of usefulness to the profession and the public is not child's play.

Administering the budget, publishing a constantly improving medical journal, supervising a growing and more profitable annual meeting are some of the routine tasks of the Council. More important, perhaps, are the policy-making functions, the establishing of associational programs, determining the stand the Association should take in the legislative field, both on state and national issues. In addition, the Council develops measures to maintain and improve professional standards in medical and hospital practices, assist in medical education and post-graduate education programs.

Oftentimes, work of the various committees of the Association brings visible

and dramatic results, with little cost and no risk being involved. Not so with the Council. Working behind the scenes struggling with weighty problems of utmost importance to the profession, the Council finds no glory and often encounters resistance from partially informed minorities within the membership. Major policy decisions are not tossed off lightly. On one recent issue, two special day-long sessions, separated by only 30 days, were held. Actions are taken only after careful and mature consideration.

Perhaps it has not occurred to you what a tremendous sacrifice the members of the Council make in behalf of you, a member of the Association. Not including the special sessions held during the Annual Meeting, the average member of the Council travels 920 miles a year and spends 56 working hours away from his practice. All of the members travel a total of approximately 17,280 miles in a year and spend 1,008 hours, or 126 eight-hour days, away from their practices.

The only compensation members of the Council receive for this mammoth expenditure of effort is the satisfaction that they have done their best to promote the best interest of their fellow physicians and the public. No funds are allowed by the Association to reimburse the members of the Council for their travel and maintenance expenses while on Association business.

To allow the Council more time for the more important issues, the Executive Committee was formed, composed of the chairman and vice-chairman of the Council, the president and president-elect, the secretary and general manager, and two additional members of the Council. Members of this committee will average 135 miles of travel and eight and one-half hours of meeting. They will travel a total of 780 miles over and above the regular Council meetings and spend 51 hours a year without reimbursement for expenses.

Members of the Association can feel justly proud of their Council. They can be truly grateful for the unselfish devo-

tion to duty, the extensive contribution of time and effort made by the members of the Council, and rest secure in the knowledge that as long as the affairs of the Association rest in the hands of faith-

ful, loyal, and astute men such as comprise our present Council, the Association will move forward in usefulness, esteem, and honor.

A SOCIALIST SUGGESTS SILENCE

Norman Thomas, who has achieved a unique place in the annals of American history through his ability to be an avowed socialist leader and at the same time retain an aura of respectability, put his finger on something important several weeks ago.

In a statement to the press, he expressed the view that the members of the Socialist Party could best serve socialism aims by disbanding as a formal political organization in the United States. He said that at the present time the existence of a Socialist Party in America only serves as an irritant.

The important element in Mr. Thomas' pronouncement is not what he said, but what he did not say. Anyone who has followed the career of this endurance champion among presidential candidates must recognize both his willingness to fight and his astuteness.

Does Mr. Thomas recommend suicide by the Socialist Party because he has lost a taste for its aims? Does he do so because he is actually concerned whether a party, which has never received more than a token vote, will irritate people? Or does he have another reason: satisfaction that the party has done its job?

The probable truth of the matter lies in the fact that Mr. Thomas recognizes that a sufficient number of men in the major political parties—both Republican and Democrat—have swallowed the socialist bait, hook, line, and sinker enough

to enable the Fabian socialist approach to operate without the existence of a formal socialist party.

It is doubtful if Mr. Thomas' position is dictated by a reading of John T. Flynn's book "The Road Ahead." It is probably true, however, that the Fabian principle of capturing segments of major political parties, as described in Mr. Flynn's book, was very much in his mind when he recommended disbanding the Socialist Party. Few socialists will take Mr. Thomas's comments to mean that they should quit. Instead, it means "we've established a good foothold in both major parties, let's bore from within."

What does all this mean to you and me? It means that we must be even more alert if we are to defend successfully the American Heritage of Freedom, if we are to safeguard adequately our priceless possession of liberty for the individual.

Norman Thomas is a keen student of American politics; he is also a socialist. When he suggests silencing his party, it should warn us that an even greater danger to free enterprise exists. It is evidence that he feels that socialism itself, under one guise or another, has achieved a degree of respectability among enough people that it may stand alone.

We cannot afford to misinterpret the tongue-in-cheek admission of defeat by the socialist. To do so is to court disaster.

Health and welfare legislation comprised 10 per cent of the 342 measures recorded out of 1,117 submitted on the opening day of the 83rd Congress, according to a recent A.M.A. Washington Letter. Among these were bills to authorize appointment of licensed and experienced chiropractors to the Veterans Administration; to credit alien physicians under the doctor draft for military service with co-belligerents; and to provide for deduction of voluntary health plan premiums from federal income tax. A

popular subject that figured in a large number of bills was the proposal, originally known as the Bricker Resolution, to amend the Constitution by prohibiting the making of treaties or agreements abridging U. S. laws or state constitutions. One measure asking investigation of the Veterans Administration by the House Veterans Affairs Committee, will require additional legislation to finance the study, is similar to a resolution passed by the 80th Congress.

ORGANIZATION SECTION

Program

Third Annual County Medical Society Officers Conference

Brown Hotel, Louisville

Thursday, March 5, 1953

9:15 A. M. Pre-meeting showing of movie entitled "Without Fear."

MORNING SESSION

R. Haynes Barr, M. D., Owensboro, presiding
President, Kentucky State Medical Association

- 9:45 **Call to order and announcements.** Dr. Barr
- 9:50 **Welcome and remarks.** Bruce Underwood, M. D., Louisville
Secretary and General Manager, K.S.M.A.
- 10:00 **Stimulating Interest in County Society Activities.**
Edmund K. Yantes, M. D., Clinton, Ohio
- 10:20 **A Senator Appraises Medical Legislative Programs.**
State Senator Louis Cox, Frankfort
- 10:40 **Why Should M.D.'s Want a County Rural Health Council?**
Aubrey Gates, Chicago
Field Director, A.M.A. Council on Rural Health
- 11:00 **Intermission**
- 11:05 **Summary of Services Available by Field Secretary.**
Vinson Pierce, M. D., Covington
Chairman, Education Campaign Committee, K.S.M.A.
- 11:25 **Abuses of Voluntary Health Insurance.**
Eldon Baumgarten, M. D., Detroit
- 11:45 **Discussion.** Clyde C. Sparks, M. D., Ashland, moderator
Chairman of the Council, K.S.M.A.

12:30 P.M.

LUNCHEON

- 1:30 **Fees and Doctor-Patient Relationship.**
Elmer Hess, M. D., Erie, Pennsylvania
Chairman, Council on Medical Service, A.M.A.

AFTERNOON SESSION

J. Duffy Hancock, M. D. Louisville, presiding
President-Elect, K.S.M.A.

- 2:00 **Doctors Meet the Press, a panel.** Dr. Barr, moderator
J. Frank Adams, Lexington, State Editor, Lexington Herald
James M. Willis, Brandenburg, Editor, Meade County Messenger
Gene Clos, Louisville, News Director, Radio Station WKLO
John Bach, Chicago, Director of Press Relations, A.M.A.
- 2:25 **Intermission**
- 2:30 **The Doctor's Responsibility in the Role of Community Relations**
Julian Price, M. D., Florence, South Carolina
- 2:50 **Question period.** J. Farra Van Meter, M.D., Lexington, moderator
- 3:10 **Adjournment**

Rural Health Sessions Programed For March 11 and 12

The Second Kentucky Rural Health Conference will be held the afternoon and evening of Wednesday, March 11, and the morning of Thursday, March 12, at the Kentucky Hotel in Louisville. All physicians, farmers, and other persons interested in Kentucky rural health problems are invited to attend.

The theme of the conference, the aim of which is to stimulate and assist in the state-wide development of local rural health councils, will be "Follow through back home." The program has been constructed so as to provide a maximum of practical material usable to people at the community level.

The opening session of the conference, March 11, will begin with greetings by R. Haynes Barr, M.D., president of the Kentucky State Medical Association. His remarks will be followed by a panel discussion entitled "Why We Need Better Health in Our Rural Communities." Panel participants will include three Kentucky Farm Bureau county presidents and two farm women leaders as well as J. E. Stanford, Kentucky Farm Bureau Federation executive secretary who will act as moderator.

Discussion of specific rural health problems will follow. R. C. Klussendorf, D.V.M., of Terre Haute, Indiana, former executive secretary of the American Veterinary Medical Association and now with Commercial Solvents Company, will speak on "Farm Animals and Rural Health." Miss Mildred E. Neff, Louisville, director of the Kentucky State Department of Health Division of Nutrition, will speak on "Foods—A Major Factor in Farm Health." Speakers from the dental profession and the Congress of Parents and Teachers will discuss professional and lay responsibility as they are related to community action in preventive dentistry.

Aubrey Gates, Chicago, field director of the American Medical Association Council on Rural Health, will lead a general discussion period which will conclude the first session.

C. C. Howard, M.D., Glasgow, chairman of the K.S.M.A. Rural Medical Scholarship Committee, will be one of two speakers at the banquet meeting the evening of March 11, and will discuss the work of his committee. Arrangements are being made to obtain a nationally prominent figure to deliver an address on voluntary co-operation as the key to farm problems, including health.

The final session of the Kentucky Rural Health Conference will be held the morning of March 12, at 9:00. "Farm Youth and Rural

Health" will be discussed by E. P. Hilton, Frankfort, director of Agricultural Education for the Kentucky Department of Education, and J. W. Whitehouse, Lexington, of the University of Kentucky's Extension Division.

Donald A. Dukelow, M.D., Chicago, consultant to the American Medical Association Bureau of Health Education, will speak on "The Place of the School in Rural Health." This will be followed by a discussion of "Nursing in the Rural Community" by Mrs. Lois E. Streuter, R.N., executive director of the Kentucky Board of Nurse Education and Registration.

The "Follow through back home" will be highlighted by a discussion of practical suggestions in the development of rural health councils as experienced in Kentucky. The conference will be concluded with a summary by Burl St. Clair, Falls of Rough, president of the Kentucky Farm Bureau Federation, under the title "We're All Together in This."

The three sessions of the conference will be respectively presided over by Walter L. O'Nan, M.D., chairman of the K.S.M.A. Rural Health Committee; Frank Welch, dean of the University of Kentucky College of Agriculture; and Burl St. Clair, president of the Kentucky Farm Bureau Federation.

The conference is being sponsored by the Kentucky Rural Health Council, which was founded by the Kentucky State Medical Association.

Third Seminar to Cover "Office Proctology," March 31

The third Telephone Seminar, to be presented Tuesday, March 31, will cover "Office Proctology," and will be moderated by Thomas V. Gudex, M. D., Louisville.

According to Robert Lich, M. D., Louisville, chairman of the Committee on Medical Education, the purpose of this panel is to present diagnostic and treatment procedures applicable for office use.

Other members of the panel are M. H. Puls-kamp, M. D., associate clinical professor of proctology and chief of the section; Marvin Lucas, M. D., clinical associate in proctology; and William J. Martin, M. D., assistant clinical professor of proctology.

"Significance of the Cough" is the subject scheduled for the February 24 broadcast. It will be discussed by O. O. Miller, M. D., John S. Harter, M. D., and W. B. Troutman, M. D., with Harper E. Richey, M. D., as moderator. All are of Louisville.

Dr. Lich announced that county societies who had not indicated a desire to participate in the broadcasts might still do so by contacting the Kentucky State Medical Association headquarters, 620 South Third Street, Louisville, as soon as possible.

Mar. 5 Conference Attracts County and State Officers

All county medical society officers and all county committee chairmen, along with all Kentucky State Medical Association officers and committee chairmen are especially urged to attend the Third Annual County Society Officers Conference at the Brown Hotel, 9:45 a.m., Thursday, March 5, Clyde C. Sparks, M. D., Ashland, chairman of the Council announced.

In addition, Dr. Sparks said all members of the association would be warmly welcomed at this annual session, which is sponsored by the Council of K.S.M.A.

A movie of exceptionally broad interest entitled "Without Fear" will be shown at 9:15 a.m. in the South Room at the Brown Hotel for those who arrive early. The movie was developed last fall by a Pacific Coast labor union for the purpose of selling socialized medicine to lay people. Dr. Sparks stated officials who had seen this movie regard it as among the more shocking bits of propaganda yet issued.

"Members will recognize after reading the 1953 program of the Conference which is carried on the first page of the Organization Section of this issue that unusual care has been given to present a most profitable and well balanced program," Dr. Sparks said.

"As a matter of fact," he continued, "members who attended last year's conference selected this year's program." He explained that a questionnaire was sent out to those who attended the 1952 meeting. The response to that questionnaire provided subjects for this year's program.

Southeastern Surgeons to Hear 48 Papers Here, March 9-12

Forty eight scientific papers will be presented at the twenty first annual meeting, March 9 to 12, of the Southeastern Surgical Congress, at the Brown Hotel in Louisville, the largest number ever to be given at the organization's annual session, according to J. Duffy Hancock, M. D., Louisville, general chairman of the meeting.

Kentuckians who will appear on the program are B. B. Baughman, M. D., Frankfort,

who will discuss "Hip Fractures in General Surgery," and Lanier Lukins, M.D., and J. B. Lukins, M. D., of Louisville, who will present a paper on "Some Aspects of Endometriosis."

Guest speakers for the meeting, which is expected to attract over 500 physicians—all K.S.M.A. members are invited—include the following physicians: Donald Proctor, Baltimore; Brown M. Dobyns, Cleveland; Angel Reaud, Havana; Arnold S. Jackson, Madison, Wisconsin; Richard H. Overholt, Brookline, Massachusetts; and Thomas G. Orr, Jr., Kansas City.

Arthur T. Hurst, M. D., Louisville, president of the Jefferson County Medical Society, will welcome the visiting surgeons the morning of March 9, and R. Haynes Barr, M. D., Owensboro, president of the Kentucky State Medical Association, will bring the greetings from the state association. Invocation will be offered by Reverend Thomas M. Giltner, minister, Douglass Boulevard Christian Church.

The Golf Tournament will be held Tuesday afternoon, March 10, at Big Springs Country Club, and the Annual Banquet will be at the Brown Hotel, Wednesday evening, March 11. Entertainment planned by local committees is for both the visiting surgeons and their wives and includes side trips to points of interest in the state, parties, and sports events.

Elmer L. Henderson, M. D., Louisville, is honorary general chairman of the session. Dave Cox, M. D., Louisville, is serving with Dr. Hancock as general co-chairman of the meeting.

Committee Starts Program Draft "No Ky. Doctor Can Miss"

The Kentucky State Medical Association Committee on Scientific Assembly held a meeting in Louisville, December 18 to begin plans for the scientific program of the Annual Session scheduled for September 22, 23, and 24 of this year in Louisville.

A tentative list of nationally noted speakers was drawn up to whom invitations to address the association have been sent. Selection of these guests was made on the basis of the committee's stated objective that the 1953 annual session program be one "that no Kentucky doctor of medicine can afford to miss."

Committee members present at the meeting were R. Haynes Barr, M.D., Owensboro, chairman; J. Duffy Hancock, M.D., Louisville; T. O. Meredith, M.D., Harrodsburg; and Charles C. Rutledge, M.D., Pikeville. Not present were Carl W. Kumpe, M. D., Covington, and Bruce Underwood, M. D., Louisville.

Dr. Griffith Va. Governor's Guest at WMA Conference



D. M. Griffith, M. D., Owensboro, has been selected by Governor Lawrence Wetherby to attend the first western hemisphere conference of the World Medical Association at Richmond, Virginia, April 23 to 25, as the guest of Governor John S. Battle of Virginia, along

with similarly selected physicians from other states who are 75 years old or more.

Dr. Griffith was born in 1867 and graduated in 1888 from Tulane University Medical Department, and he has practiced ever since at Owensboro, specializing in diseases of the eye, ear, nose, and throat. He is a member of the Henderson County Medical Society and the Kentucky State Medical Association, which he served as president in 1907.

The 48 guest physicians, who remember the "horse and buggy days" of medical practice, will make some tours of historic Virginia and will sit in on a panorama of the advent of X-ray, vitamins, blood transfusions, powerful drugs, and other advances that have increased man's life expectancy, according to actuarial tables, from 34 to 68 years. They will be greeted by Louis H. Bauer, M.D., president of the American Medical Association and secretary-general of the World Medical Association, and will hear medical leaders of Latin America.

Dr. Miner Plans Urology Session at Havana, March 26-29

President William R. Miner, M. D., Covington, of the Southeastern Section of the American Urological Association, has announced plans for the seventh annual meeting of the section at Hotel Nacional, Havana, Cuba, March 26 to 29.

Dr. Miner, first Kentuckian to serve as president of the section, said featured speakers on the scientific program would include such urological leaders as T. Leon Howard, M. D., George Cahill, M. D., Elmer Hess, M. D., F. E. B. Foley, M. D., and Victor Marshall, M. D. The Eallenger Memorial Lecture will be given by the nationally known physiologist of New York University, Homer Smith, M. D.

Avrom M. Isaacs, M. D., Louisville, will discuss radio-active gold and its relation to the

treatment of cancer of the bladder. Robert Lich, M. D., Louisville, is a member of the Committee on Scientific Exhibits and Motion Pictures and is actively assisting in the development of this phase of the Havana meeting.

The Cuban Urological Society is planning a warm welcome for the urologists from the southeastern states and will entertain them with a barbecue and "fiesta." Other entertainment will include an evening at the Havana Yacht Club and the annual golf tournament.

Guest Speakers Highlight Ky. AAGP Session April 22

Five guest essayists will highlight the first day of the annual meeting of the Kentucky Chapter of the American Academy of General Practice April 22 and 23, at the Roof Garden of the Brown Hotel, Louisville.

"Recent advances in Medicine as they will apply to general practice" will be the theme the program is built on for the second day. It will be presented by the faculty of the University of Louisville School of Medicine, according to the program released by D. G. Miller, Jr., M. D., Morgantown, secretary of the academy.

Joe M. Bush, M. D., of Mt. Sterling, chapter president, will preside at a dinner meeting on the 22nd and will speak on "The Meaning of the Academy of General Practice." William Dern, D. D., an Episcopal rector, will deliver the feature address.

All senior students at the University of Louisville School of Medicine and interns and residents interested in doing general practice and their wives will be the guests of the Kentucky chapter and the Jefferson County chapter.

Every interested physician in Kentucky and surrounding states is invited to these sessions, Dr. Miller said. A registration fee of \$5.00 will be charged, and academy members will be allowed ten hours credit for attending the scientific session.

Guest speakers for the Wednesday session and their subjects are: Neal Owens, M. D., professor of plastic surgery, Tulane University, and director of Owen Reconstruction Clinic at the Charity and Turo Infirmary: "Burns"; Albert Weinstein, M. D., associate clinical professor of medicine, Vanderbilt University College of Medicine, and board member, College of Physicians: "Ulcerative Colitis."

Richard E. Goldsmith, M. D., professor of medicine, University of Cincinnati: "Toxic Goiter"; Claude Starr Wright, M. D., professor

of medicine, Department of Hematology, Ohio State University School of Medicine: "Appraising an Anemia"; Thomas E. Shaffer, M. D., professor of pediatrics, Ohio State University School of Medicine: "The School-Age Child in Your Practice."

AMA President Lists Medicine's Major Objectives for 1953

A constructive nine-point program for what he called "the preservation of our American system of medicine" has been outlined by Louis H. Bauer, M. D., Hempstead, New York, president of the American Medical Association.

His nine points, directed to all physicians are:

1. Work with rural communities to establish facilities for physicians, so that we shall have a better distribution of physicians.
2. See that good medical care for the indigent is available everywhere just as it is in some states.
3. Extend public health coverage to areas lacking it.
4. Develop plans for the care of the chronic invalid.
5. Expand our voluntary insurance program, not only to cover more persons, but to cover those over age 65 and those suffering from illness of long duration.
6. Clean our own house, by disciplining those physicians who are tarnishing the reputation of the whole profession by their unethical acts of overcharging, accepting kick-backs, and making commercial arrangements with pharmacists.
7. See that the public is protected so that they can always obtain the services of physicians.
8. Revitalize our county societies and make them leaders in their communities in all health matters.
9. Inculcate the newly trained physicians in the tradition and ethics of medicine.

Dr. Bauer said that there also are "certain legislative matters that will require our attention and earnest study." He listed them as follows:

1. The establishment of a department or independent agency of health in the federal government. It must not be tied in with education or social security. Health is important enough to warrant an agency by itself.
2. The making of constructive suggestions for the solution of the problem of the totally disabled under the social security law.

3. Obtaining sufficient physicians for the armed forces, without injustices or upsetting civilian medical care programs.

4. Enactment of a law allowing pensions or retirement privileges for the self-employed, along the lines of the Reed-Keogh bill introduced in the last Congress.

"Another matter, which may not require legislation," Dr. Bauer said, "is a solution of the problems related to the Veterans Administration.

"These are a few of the matters that will engage our activities in the immediate future. They will require the labors and co-operation of all our constituent and component units, as well as the support of the individual members of the profession. A united profession can accomplish much, while a disunited profession can accomplish nothing."

Diabetes '52 Drive Results More Than Double Effort

The 1952 Diabetes Detection Drive in Kentucky, sponsored by the Kentucky State Medical Association during National Diabetes Week, November 16 to 22, was more than twice as successful as the 1951 campaign, according to a preliminary report issued by Carlisle Morse, M.D., Louisville, chairman of the K.S.M.A. Diabetes Committee.

"With results still unreported by several large counties in the state, we have already accounted for more than twice as many urine sugar tests made in the 1952 drive as were reported for 1951," Dr. Morse said. "In 1951 a total 11,136 tests were reported for the state, compared to 23,553 this year."

Sixty county medical societies have submitted their reports. They show that 389 urine sugars were found to be positive and 146 previously unknown diabetics were discovered as a result of the drive. Several counties indicated that the number of newly found diabetics was undetermined; so, the actual figure is probably higher, Dr. Morse indicated.

"The splendid co-operation from county medical societies and individual physicians have been important factors in the detection drive's success," Dr. Morse said. "It evidently springs from a recognition by the profession at large of the great public service that the campaign provides and from a willingness by physicians to assume their responsibility fully in a health program which is unique in the sense that it is completely directed by doctors of medicine and is non-fund-raising in character."

"We learned much through our first drive in 1951, and with the additional lessons from the

1952 campaign, we are looking forward to an even more successful detection program in 1953," Dr. Morse continued. "The K.S.M.A. Diabetes Committee will be meeting shortly to develop plans for continuation of a program which, through public service, reflects well on the entire medical profession."

M.D's Part in RH Council Movement Stressed by Committee

The importance of active participation by physicians in the creation and fostering of local rural health councils was re-emphasized by the Kentucky State Medical Association Committee on Rural Health at a meeting of the committee held in Louisville, January 15.

The committee discussed methods by which it could most effectively inform K.S.M.A. members as to how and why active assistance by physicians to the local rural health council movement is important to both the medical profession and the public. It was agreed that committee members should avail themselves of opportunities to discuss rural health councils before county medical societies in their respective areas.

Plans for the second Kentucky Rural Health Conference to be held at the Kentucky Hotel in Louisville, March 11 and 12, which is reported more fully elsewhere in this issue of The Journal, were discussed. Walter L. O'Nan, M.D., committee chairman, voiced a special appeal that every doctor of medicine in rural Kentucky plan to attend the conference.

The committee heard a report on the national rural health council movement. Working with the A.M.A. Council on Rural Health, there are now 44 states which have state rural health councils.

Committee members present in addition to the chairman were: Dr. O'Nan, Henderson, J. Auldin Bishop, M.D., Jeffersontown, George P. Carter, M.D., Louisa, Donald L. Graves, M.D., Frenchburg, C. Wyatt Norvell, M.D., New Castle, George H. Riley, M. D., Erlanger, and James M. Stevenson, M.D., Brooksville.

Donald W. Anderson, M.D., Madisonville, George M. Asher, M.D., Pineville, Michael M. Hall, M.D., Campbellsville, D. Y. Keith, M.D., Paducah, D. G. Miller, Jr., M.D., Morgantown, Carl Pigman, M.D., Whitesburg, Ben. F. Roach, M.D., Midway, Sam A. Rector, M.D., Munfordsville, Grady Stewart, M.D., Olive Hill, Gamett J. Sweeney, M.D., Liberty, W. Lee Tyler, Jr., M.D., Owensboro, and B. Ralph Wilson, M.D., Sharpsburg, were absent.

Scott County Congratulated

The Scott County Medical Society held its 103rd consecutive monthly meeting in December, 1952, H. V. Johnson, M. D., Georgetown, its secretary, has reported.

When informed of the Scott County record, R. Haynes Barr, M. D., Owensboro, president of the Kentucky State Medical Association, said "The members of the Scott County Medical Society are to be congratulated upon their excellent record. The strength of the medical profession lies in its ability to organize. The county society is the cornerstone of organized medicine. The Scott County group has set a pattern all medical societies would do well to follow."

Tuberculosis Survey Policies

The following information from P. M. Crawford, M. D., director of the Division of Tuberculosis Control of the State Department of Health, has been released to the physicians of Kentucky:

"Effective immediately, the tuberculosis survey program in Kentucky will be carried on as follows:

"(1) All of the mobile X-ray equipment is now either 70 mm. or 4x5 inch photo fluorographic film; because of this we will be able to make a final reading for survey purposes on all films. Every person whose film shows X-ray evidence of pathology will be referred to his physician for further diagnostic study, consultation, and advice. The physician will be sent a report of the film and will be asked to report the final diagnosis to the local health department.

"(2) Individuals whose X-ray films are technically imperfect will be offered retakes by the health department.

"(3) Individuals whose X-ray films are negative will receive direct notices by post card.

"(4) No 14 x 17 follow-up films will be done by local health department except on referral by physicians. Advice as to treatment will no longer be given by consultants as a part of film reporting from the State Department of Health. If consultation is desired and not available locally, it may be obtained from the Out-Patient Clinic of the district Tuberculosis Hospital.

"(5) The local health department will receive a copy of all film interpretations and will gladly assist in follow-up of the patients. They will also attempt to provide public health nursing service to the patients when requested. It is essential in our effort to control tuberculo-

sis that all patients referred to the family physician be followed by him until a final diagnosis is made and that this diagnosis be reported to the local health department. In the event there is no report from the physician thirty days after the report on the film, he will be contacted by the local health department in order to determine the status of the patient.

"We urge your continued co-operation in the interest of controlling tuberculosis, which is the most serious infectious disease problem in Kentucky."

Secretary to Attend Licensure Conference

Bruce Underwood, M. D., secretary and general manager of the Kentucky State Medical Association, will attend the 49th annual Congress on Medical Education and Licensure at Chicago, February 8 to 10, which will consider problems besetting medical schools and licensing boards.

Outstanding speaker will be Louis H. Bauer, M. D., president of the American Medical Association, and H. G. Weiskotten, M. D., chairman of the A.M.A. Council on Medical Education and Hospitals. There will be three panel discussions on the impact of the defense program on medical education, the evolution of an experimental program of medical education, and the internship in modern medical education. Other sessions will be conducted by the Advisory Board on Medical Specialties and the Federation of State Medical Boards, which co-sponsors the congress with the Council on Medical Education and Hospitals of the A.M.A.

New KSMA Members Welcomed

Hickman—M. E. Arnold, Clinton.

Jefferson—Harold C. Morris, Louisville.

The First World Congress on Fertility and Sterility will be held May 25 to 31, at the Henry Hudson Hotel, New York City, under sponsorship of the International Fertility Association with the co-operation of the American Society for the Study of Sterility. Approximately 1,800 scientists from 51 countries are expected to attend the 23 scientific sessions and the medical round table discussions embracing the two fields. Sessions will be conducted in English, French, and Spanish with earphones and simultaneous translations. Seats at the Congress may be obtained by writing to the Chairman of the Local Arrangements Committee, 1160 Fifth Avenue, New York 29.

Kentucky—The Progenitor of Pioneer Doctors

(Continued from page 69)

Dowell, Dudley, Drake, Richardson, Brown, Overton, Caldwell, Short, Yandell, Bush, John Esten Cooke, Skillman and Robert Peter, and last, but not to be forgotten, the faithful janitor, Absolam Driver, who kept things going at the medical hall.

Partly because of these men my portfolio for this occasion contains a few additional items resulting from an effort to hold my own humble place in this multifaceted pageant initiated by Kentucky's pioneer doctors. They are monographs entitled, "Pioneer Medicine in the Southwest," "Medicine on the Santa Fe Trail," and "The Influence of Kentucky Medical Schools on Medicine in the Southwest." These and other less important publications required much research which combined with my own experience may help you to accept this story without documentation.

If I could throw upon the screen an animated picture of all the sons of Kentucky medical schools since the first medical graduates of Transylvania said, "Goodbye, Mr. Chips," and if I could show all of their movements and activities, all the babies they have brought into the world, all the suffering they have stayed, all the lives they have saved and all the life-weary people they have eased over the river when death prevailed, you would have to sit with eyes riveted to the screen at least a hundred and fifty years.

Once J. M. Barrie said, "The only ghosts I believe, who creep into this world, are dead young mothers, returned to see how their children fare." Reflecting upon this concept I have fancied that occasionally doctors may return to see how their patients do, or to learn of medical progress. I love to think of the ghosts of Lexington and Louisville and when the bell tolls for me, who shall say that I may not meet them face to face in the choir invisible.

The first issue of *Obstetrics and Gynecology*, new monthly journal of the American Academy of Obstetrics and Gynecology, was released in January to nearly 6,000 subscribers. Edited by Ralph A. Reis, M. D., Chicago, the magazine contains some 120 pages of scientific material as well as items of interest to physicians practicing obstetrics and gynecology.

President's Page

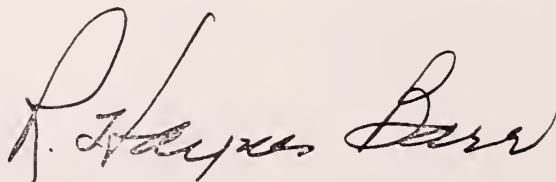
March 11 and 12, the second Kentucky Rural Health Conference will be held at the Kentucky Hotel in Louisville. Co-operating with your Kentucky State Medical Association in this joint voluntary activity will be the Kentucky Farm Bureau Federation, the Kentucky Congress of Parents and Teachers, the Kentucky Press Association, the University of Kentucky Extension Division, the Kentucky Pharmaceutical Association, the Kentucky Dental Association, and other state-wide organizations.

An examination of the program, which appears elsewhere in this Journal, should thoroughly convince you that no effort has been spared in obtaining topflight speakers. Those members of all participating organizations who attended this conference last year were greatly impressed by the value of the meeting of these active groups,—all vitally interested in the health of rural people—to discuss problems common to all and seeking to help each other to improve health in rural communities.

Since we physicians of Kentucky feel that the responsibility of leadership in the field of health falls squarely on our shoulders, it is essential that we demonstrate this feeling in a tangible way to the co-ordinating groups by turning out in large numbers March 11 and 12.

The physicians in those counties where a county rural health council has not yet been organized will find much inspirational and informative material in this conference on the state level. Material will be presented which will assist them in the discharging of their own responsibilities in their own communities.

Apart from this responsibility for aiding in their development, it is noteworthy that the local rural health councils afford the physician an opportunity to participate fully in community affairs without leaving his most familiar element. When we fail to use such chances, others less qualified are eager to fill them.

A handwritten signature in dark ink, reading "R. Hayes Barr". The signature is fluid and cursive, with the first name "R." and last name "Barr" clearly legible.

PRESIDENT

News Items

Oris Aaron, M. D., formerly of Knoxville, Tennessee, recently moved to West Liberty where he will engage in the practice of medicine. Dr. Aaron graduated in 1939 from the University of Louisville School of Medicine.

Charles R. Faulkner, M. D., has moved from Albany to Somerset where he has established an office for the general practice of medicine. Dr. Faulkner is a 1938 graduate of the University of Louisville School of Medicine.

Charles C. Kissinger, M. D., recently established an office at Henderson for the practice of surgery after two years on the staff of the Veterans Hospital at Fort Wayne, Indiana. Dr. Kissinger graduated in 1938 from George Washington University School of Medicine. He entered the army after an internship and residency at McKeesport Hospital, McKeesport, Pennsylvania, and Flower Hospital, Toledo.

William E. Myre, M. D., has returned to Paducah for the practice of his profession after completing his service in the army. Dr. Myre is a 1946 graduate of the University of Louisville School of Medicine and served his internship in City Hospital, Springfield, Ohio.

John R. Prusmack, M. D., who earned three degrees from the University of Louisville, including his M. D. in 1936, was appointed manager in January of the Veterans Administration Hospital at Palo Alto California. In 1945 he was certified by the American Board of Psychiatry and Neurology.

Charles S. Scott, M. D., Middlesboro, who graduated in 1947 from the University of Arkansas School of Medicine, has now gone into the service and is stationed at Fort Knox as lieutenant with the 405th Medical Group.

In Memoriam

DR. JAMES L. TOLL

Lawrenceburg

1874 - 1952

Dr. James Leslie Toll, 78, a physician for 51 years and former mayor of Lawrenceburg, died at his home on South Main Street October 7, 1952. He served as mayor from 1912 to 1927 and from 1930 to 1947.

Dr. Toll was graduated from the Kentucky School of Medicine in 1897. He practiced in Salvisa, Mercer County, for three years before returning to his native Anderson County. He practiced in Lawrenceburg until his retirement about four years ago.

Dr. Toll rarely missed a meeting of the Kentucky State Medical Association. He belonged to the old school of practitioners which was known as the "horse and buggy" period.

The Second Annual Tuberculosis Symposium for General Practitioners will be held in the Adirondacks at Saranac Lake, New York, July 13 to 17, providing 26 formal credit hours to attending members of the American Academy of General Practitioners and recreational op-

DR. EDWARD A. ROSE

Louisville

1885 - 1952

Dr. Edward A. Rose, 67, a physician in Louisville for 44 years, died December 28, 1952.

He was a native of England and was graduated from the University of Louisville Medical Department in 1909.

DR. G. W. MOORE

Louisville

1860 - 1952

Dr. George W. Moore, 92-year-old retired physician died in Louisville.

Dr. Moore, who practiced in Chicago and in the West, moved to Louisville after his retirement to be with his brother, Dr. B. A. Moore, who died last February.

He was a native of West Virginia and was graduated from Loyola University, Chicago.

opportunities to their families. The symposium is also open to non-members. Information and registration, limited to 100 physicians, are obtainable through Richard P. Bellaire, M. D., Tuberculosis Symposium for General Practitioners, P. O. Box 707, Saranac Lake, New York.

County Society Reports

BOURBON

The Bourbon County Medical Society met on December 9, 1952, in the library of the Bourbon County Hospital. Dr. Harvey Chenault was the speaker for the evening, his subject being "Intracranial Aneurysms."

Dr. Grant of Winchester met with the society in the interests of the merging of Clark, Bourbon, and Montgomery counties into a single society for the purpose of scientific meetings only. Each county medical society, according to the plan, is to preserve its own integrity for business purposes. The Bourbon County Society expressed itself as pleased, and the first joint meeting was scheduled in Clark County in January.

Officers for the year 1953 were elected as follows: Dr. B. N. Pittenger, president; Dr. William Davis, vice-president; Dr. William Cox, secretary and treasurer; Dr. William Dye, chairman of Committee on Diabetes; and Dr. Jesse Smith, chairman of Committee on Emergency Medical Service (Civil Defense). Dr. Zapolsky, medical executive of District No. 3 Tuberculosis Hospital, was elected a new member of the society.

It was agreed that Bourbon County will participate in the Telephone Seminar sponsored by the Kentucky State Medical Association.

B. N. Pittenger, M. D., Secretary

BOYLE

The Boyle County Medical Society met on December 16, 1952. The following members were present: Doctors P. C. Sanders, A. M. Jester, S. P. Hemphill, C. W. Caldwell, R. G. Jackson, C. S. Jackson, J. R. Hardaway, and W. H. Gabbert.

The meeting was called to order by the president, Dr. Sanders. The minutes of the previous meeting were read by the secretary, Dr. Caldwell, and were approved as read. An election of officers was held for the year 1953, and Dr. G. M. McClure was elected president, Dr. W. H. Sanders, vice-president, and Dr. C. S. Jackson, secretary and treasurer. Dr. William Gabbert was elected new censor, his term expiring in 1955. Dr. Jester's term expires in 1954, and Dr. Caldwell's in 1953.

It was unanimously approved to retain as members of the Selective Service Advisory Committee Doctors J. R. Cowan, W. H. Smith, and O. L. May.

It was decided to subscribe again in 1953 to the telephone seminar and to defray the

cost from the treasury of the Boyle County Medical Society.

The only new business was brought up by Dr. Sanders concerning the increased cost of the care of indigent patients in the hospital. The main increase in cost, it was brought out, was not in the hospital bed rate per day, but in the drugs and medication used while at the hospital. This was considered not a matter for the Society but rather a situation that should be discussed by the hospital management and Dr. Sanders.

Chris S. Jackson, M. D., Secretary

JEFFERSON

The 464th meeting of the Jefferson County Medical Society was held November 17, 1952, at the Seelbach Hotel. Seventy-nine members and guests attended a dinner and about twenty additional were at the meeting.

The meeting was called to order by the president, Dr. R. R. Slucher.

The guest speaker, Dr. George Harding, was introduced by Dr. H. Burd Mack. Dr. Harding is clinical professor of psychiatry at Ohio State University and operates the Worthington Sanatorium.

Minutes of the previous meeting were read and approved.

The secretary read a communication from Dr. C. H. Miller, director, City-County Board of Health, requesting members to write the Louisville and Jefferson County Advisory Committee what they individually did in connection with the polio epidemic.

It was moved and seconded that this request be referred to National Foundation for Infantile Paralysis Advisory Committee. Dr. Wood, chairman, stated this was a matter for individual consideration and not for this committee's action. Motion was lost.

The secretary read a communication from the Kentucky Association of Chiropractors addressed to Dr. Slucher. Dr. Wood moved that this letter be referred to the appropriate committee. Motion carried, and Dr. Slucher stated it would be referred to the Professional Relations Committee.

In the absence of Dr. Minish, Dr. Long read the report of the Necrology Committee on the deaths of Dr. John Walker Moore and Dr. Alexander Nettelroth.

At the request of Dr. Wood, Dr. Long read the report of the Medical Advisory Commit-



Dramamine[®] in Vertigo

The remarkable relief afforded by Dramamine in motion sickness has led to studies of its possible value in allied conditions.

Dramamine apparently depresses hyperstimulation of the vestibular apparatus. Thus it is an effective means of relieving the nausea and vertigo which characterize dysfunctions of the middle ear.

Accepted Uses for Dramamine

(BRAND OF DIMENHYDRINATE)

MOTION SICKNESS

NAUSEA and VOMITING associated with
pregnancy
drugs (certain antibiotics, etc.)
electroshock therapy
narcotization

VESTIBULAR DYSFUNCTION associated with
streptomycin therapy

VERTIGO in

Ménière's syndrome
hypertensive disease
fenestration procedures
labyrinthitis
radiation sickness



SEARLE *Research in the Service of Medicine*

tee to Jefferson County Chapter, National Foundation of Infantile Paralysis. The committee formulated a fee schedule for medical payments for care of patients with infantile paralysis who receive financial assistance from the Foundation. Motion that report be accepted carried.

Dr. David Cox reported on progress being made by the committee appointed to study and make recommendations regarding the employment of an executive secretary.

There was discussion by Dr. Robert Monroe, Dr. J. B. Douglas, Dr. Louis Foltz, Dr. Grady Rowntree, Dr. Douglas Atherton, Jr., Dr. Joplin, and others; and Dr. Cox answered questions. Dr. Slucher read from the By-laws the procedure in voting on this matter.

The president appointed the following as a nominating committee: Dr. Robert Monroe, Dr. Carlos Fish, Dr. William Ray Moore, Dr. J. A. Bishop, Dr. Carlisle Morse, chairman.

Dr. Sam Overstreet proposed a plan through which the society could finance both the employment of an executive secretary and a permanent headquarters for the society: If each of the 500 or more members of the society would volunteer to set aside for this project one per cent of their income over a period of five years, the entire plan could be accomplished.

Robert C. Long, M. D., Chairman

LETCHER

The Letcher County Medical and Dental Society met in December at the Health Office in Whitesburg. There was a short business meeting and the following officers were elected to serve in 1953:

Dr. B. C. Bach, Whitesburg, president; Dr. Lee Moore (dentist), Whitesburg, vice-president; and Dr. Owen Pigman, Whitesburg, secretary and treasurer.

R. Dow Collins, M. D. (Retiring) Secretary

SCOTT

The Scott County Medical Society held its regular monthly meeting at the John Graves Ford Memorial Hospital in Georgetown December 4, 1952. The following members were present:

Doctors H. G. Wells, P. H. Crutchfield, W. S. Allphin, F. W. Wilt, A. F. Smith, E. C. Barlow, and H. V. Johnson.

The main business before the society was the election of officers for 1953. Dr. Wilt was elected president; Dr. Barlow, vice-president; Dr.

Johnson, secretary and treasurer, Dr. Wells, delegate to the state association; Dr. Johnson, alternate delegate; and Dr. Smith, censor, to serve three years.

The treasurer reported \$4.55 on hand and notified the members that 1953 dues were now payable. Several members paid their county and state dues.

It was moved and seconded and Dr. L. F. Heath was elected member emeritus.

Dr. Wilt, chairman of the Committee on Diabetes, stated he would make his complete report at the January meeting, but he estimated that about 125 patients had been tested.

Dr. Wells made a report on the action of chloromycetin. He said there were differences in opinion as to the toxic effect of this drug and he thought it should not be sold without a physician's prescription. Dr. Wilt also discussed the drug, saying it was his impression it could cause trouble unless used with great care.

Dr. Smith of Paris, guest of Dr. Wilt, discussed the X-ray situation at the hospital. He said he felt it was unnecessary for him to come to Georgetown so often unless we had more work for him to do.

H. V. Johnson, M. D., Secretary

UNION

The Union County Medico-Dental Society met on November 18, 1952, at Our Lady of Mercy Hospital, in Morganfield. The meeting was called to order by William Humphrey, M. D., and the minutes of the last meeting were read and approved.

A telecast picture was shown on the meeting held in Cleveland by the American Association of Physicians.

A nominating committee was appointed to nominate officers for 1953. Members of the committee were Dr. J. W. Conway, chairman, Dr. C. B. Graves, and Dr. D. V. Smith.

There was a good attendance at the meeting.

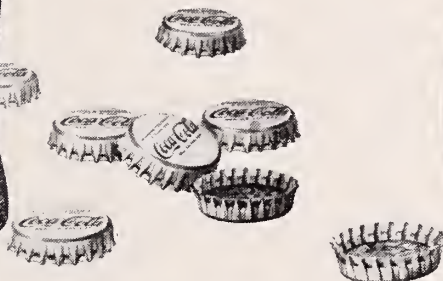
A. W. Andreasen, M. D., Secretary

UNION

The Union County Medico-Dental Society met on December 16, 1952, at Our Lady of Mercy Hospital. The meeting was called to order by William Humphrey, M. D.

The secretary read a communication on the Telephone Seminar for 1953. After a discussion, it was moved by Dr. Conway that we not participate this year. The motion was seconded by Dr. Welker and was carried.

It had to be good to get where it is



THE COCA-COLA COMPANY

There is a Difference in Glasses!

When we fill your prescription for glasses, we use only the finest lenses, selected for quality, and ground in our own laboratory—we use only the finest quality frames—we conform your prescribed glasses to your facial characteristics.

We fill Eye Physicians' prescriptions for your glasses only when you, yourself, bring the prescription to us—we DO NOT FILL ANY OTHER PRESCRIPTIONS.

our charges are moderate

SOUTHERN OPTICAL CO.

Incorporated

334 W. Broadway
Heyburn Bldg.



4th and Chestnut
Francis Bldg.

LOUISVILLE, KENTUCKY

The secretary gave the delegate's report on the K.S.M.A. annual meeting, covering in detail the various resolutions presented.

The secretary read several communications and reported on the year's activities and remarked on the value in interest and attendance of having had a planned program each month.

The nominating committee recommended the following for office, and they were unanimously elected on a motion by Dr. Welker seconded by Dr. Conway:

Dr. G. B. Carr, president; Dr. D. V. Smith, vice-president; Dr. A. W. Andreasen, secretary-treasurer for a three-year term; Dr. Andreasen, delegate, and Dr. William Humphrey, alternate delegate.

It was pointed out to the new president there were several committees to be appointed, a list of which would be submitted to him by the Secretary.

A. W. Andreasen, M. D., Secretary

WARREN-EDMONSON-BUTLER

The Warren-Edmonson-Butler Medical Society met December 9, 1952, at the Helm Hotel, Bowling Green, for its monthly dinner.

New officers were elected as follows: Dr. W. R. McCormack, president; Dr. D. B. McIlvoy, vice-president; Dr. C. M. Francis, secretary; and Dr. R. O. C. Green, parliamentarian.

A system of numbers for paging doctors at public gatherings was adopted.

Discussion of the Warren County Tuberculosis Hospital produced a resolution favoring a new hospital building located near Bowling Green, and a committee of Doctors Toomey and Moore was appointed to work on this.

The society is requesting the Kentucky Heart Association to establish a heart clinic at Bowling Green-Warren County Hospital.

An endorsement of the March of Dimes was given, and a committee was appointed to aid it.

The society agreed to recommend the adoption of the plan for the X-ray department at Bowling Green-Warren County Hospital as presented by Dr. Granville Hudson of Vanderbilt Hospital.

An interesting and instructive discussion of the "Super Radical Mastectomy" was given by Dr. Oscar Noel of Nashville. A movie was shown on fluoridation of water by Dr. Pace.

Frank H. Moore, M. D., Secretary

BOOK REVIEWS

CARDIAC THERAPY, by Harold J. Stewart, M. D., Associate Professor of Medicine, Cornell University Medical College, New York; Attending Physician, New York Hospital; Head of Division of Cardiology, Department of Medicine, New York Hospital-Cornell Medical Center. Paul B. Hoeber, Inc., Publishers, Medical Book Department of Harper & Brothers. Price \$10.

The Table of Contents reveals that every type of heart disorder receives special attention. The newest drugs are included and their safe use is specifically described. In addition, you will find valuable chapters on the nature and use of digitalis, mercurial diuretics, and anticoagulant drugs, as well as chapters on such special problems as treatment of cardiac complications in surgical patients, in pregnancy, and in the aged; the effect of electrolytic changes in the blood on heart and circulation; and what to tell patients. Diets and menus for every situation are assembled in one section.

The role of dramatic surgical operations for heart disease is fully explained.

Stemming from a large clinical experience, the book will prove valuable in daily practice to all who are called upon to treat patients with heart disease.

BRAIN SURGEON, The Autobiography of William Sharpe, The Viking Press, New York 1952 Publishers, Price \$3.75.

This story reads like fantastic fiction. The author tells in a charming manner his experiences in medical school in Germany and Italy, his trying experiences as assistant to the famous but often irascible Dr. Harvey Cushing at Johns Hopkins. Especially interesting is his story as a young physician in China and his successful brain operation on the son of the first president of the Chinese Republic, for which he received an unsolicited fee of \$50,000.

The most fascinating and moving part of his book is the story of his never-ending fight against cerebral palsy. Dr. Sharpe has contributed more than any other living man to the advance in knowledge of how to combat some of the most dreaded human ills, such as cerebral palsy and hydrocephalus.

DYNAMIC PSYCHIATRY, Frustrated Women, Volume Three, Louis S. London, M. D., Corinthian Publications, Inc., New York 16, N. Y. Publishers, Price \$3.

According to this author, there are many frustrated women. Being a student of Freud, he gives an interesting method of treatment, and it is a sequence to psychosomatic therapy.

It is really a worth-while book for physicians who have to deal with these cases. It is written in a style that is easily understood, and contains many interesting cases and the method of cure.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

MARCH, 1953

NO. 3

Small Bowel Tumors With Presentation of Twelve Cases

ALLEN E. GRIMES, M. D. and W. T. SWARTZ, M. D.

Lexington

A medical topic so long as it offers a challenge in either diagnosis or treatment, regardless of its antiquity, retains our interest. Such a subject is small bowel tumors. Both the benign and malignant lesions have been common knowledge for some time. The treatment is well understood, and we might say standardized. With the clearing of the confusion associated with the lymphoblastoma group, we may say that the pathology is now known. The diagnosis, however, continues to evade us.

Inasmuch as the cases in our experience have been somewhat unusual in their manifestations, varied in their pathology, and often undetected for indefinite periods, we felt justified in presenting them.

Two Types of Symptoms

In general however, it may be said that the symptoms frequently fall into two types, obstruction and bleeding. Colicky abdominal pain, unexplained epigastric distress, vague unrest in shifting locations in the abdomen, nausea and vomiting may be the chief complaint, or recurring melena may be the only symptom. Benign and malignant lesions at the onset are often indistinguishable.

Intussusception

Intussusception is one of the most important surgical emergencies in infancy and childhood, and in Ladd and Gross' (1) series of 484 cases a definite etiological agent was demonstrated in only 5% of the cases. In adults the causative factor is more frequently revealed. According to Eliot (2) and Corscadens' (4) analysis of

300 cases of intussusception in adults, small bowel tumors were present in 40%. It is thought that the intraluminal tumors, and these include most of the benign lesions, give early evidence of hemorrhage and obstructive symptoms. The latter are more often due to intussusception initiated by the tumor, rather than mechanical blockage from the tumor growing into the lumen or circumscribing it except with the malignant lesions. Colicky abdominal pain, distension, borborygmi, nausea and vomiting when present to a marked degree, would suggest the diagnosis of obstruction. Scout films of the abdomen during the attack, if they show gas in the small bowel, may aid in the diagnosis as it did in one of our cases. The obstructive symptoms however, are not always so acute and well defined. Occasionally, with lesions in the duodenum and higher jejunum the symptoms may simulate the dyspepsias of gall bladder disease or peptic ulcer, and remain obscure. Diarrhea, which occasionally follows the release of the intermittent obstruction may cause one to think of a lesion of the colon. One is indeed fortunate when during an acute episode, bowel pattern is well displayed or an abdominal tumor can be palpated. We had this experience in two cases, one of which had been undiagnosed for 12 years.

Etiology of Melena

Small bowel tumors frequently give rise to gastro-intestinal bleeding or melena, but are by no means the only cause of such bleeding. For a moment let us briefly discuss some of the conditions giving rise to gastro-intestinal bleeding. Lesions of the mouth and naso-pharynx can be ex-

cluded by inspection. A careful examination of the chest supplemented by x-rays should reveal evidence for or against pulmonary and cardio-vascular disease. Acute infectious disease with hemorrhagic tendencies by their specific and systemic signs are diagnosed. Trauma from crushing injuries or sharp instruments as a factor is suggested by history or signs of violence. Poisons taken by accident or with intent rarely long defy detection.

Diseases, primarily in other parts of the gastro-intestinal tract, particularly the esophagus, stomach and duodenum and colon are brought to one's attention by their better exhibited symptom complexes, and can be accurately evaluated by endoscopic and x-ray examinations.

Blood Dyscrasias

In the blood dyscrasias such as splenic anemia, polycythemia vera, thrombocytopenic purpura, hemolytic icterus, the leukemias, etc., the clinical picture brings the condition in focus, and special blood studies should enable one to make the correct diagnosis.

In the absence of hemorrhage, obstruction or other complications, tumors of the small bowel are frequently overlooked. In Newell's series, the symptoms averaged 8 years in duration for the benign lesions, and 14 to 15 months in carcinoma, before the diagnosis was made.

Benign and Malignant Tumors

Benign and malignant tumors occur with equal frequency in the small bowel. Mallory (3) in 4,165 post mortem examinations found but 11 benign tumors of the small bowel. Raiford (4) in a study of 11,500 autopsy specimens, and 45,000 surgical specimens found a total of 986 tumors of the gastro-intestinal tract. Of these there were 50 benign, and 38 malignant tumors of the small bowel or 8.9% of the total.

The more frequently encountered benign tumors include adenomas, leiomyomas and lipomas. The less frequent or even rare tumors are fibromas, pancreatic rests, neurogenic tumors, and the vascular lesions.

Adenomas

Adenomas closely approximate the glands from which they arise, and show perfectly regular mature acini with no invasion of the deeper structures. They comprise approximately one-third of the benign lesions.

Case Reports

Case 1. E. H. A 14-year-old white female since the age of 2 had irregular attacks of severe cramping abdominal pain. The mother had observed a knotty swelling at varied sites in the abdomen, and stated that nausea and vomiting accompanied the spells, and diarrhea with passage of bloody mucus frequently followed them. The patient had been seen by 24 physicians and had received almost as many diagnoses. The patient was admitted to the hospital on 2/11/51, the day after the onset of a typical attack, and was still having acute distress. While under observation the picture of obstruction was beautifully revealed. Bowel pattern in great waves could be seen, audible peristalsis could be heard without a stethoscope, and at the height of pain the child's skin became pale and moist. On abdominal examination a lemon sized mass could be felt in the upper right quadrant, and bloody mucus was obtained on digital rectal examination. A scout film showed gas in a solitary loop of small bowel. A preoperative diagnosis was made of recurrent intussusception, probably due to small bowel tumor. At operation on 2/12/51 the terminal ileum was found intussuscepted upon itself for a distance of 7.5 cm. It was reduced and a firm, pedunculated tumor 2.5 cm. could be palpated. 15 cm. of ileum with the tumor was resected. Recovery was uneventful.

Pathological Diagnosis: Solitary adenomatous polyp.

Case 2. G. S. A 49-year-old obese white female was admitted 5/21/51 giving one week's history of nausea, vomiting, diffuse abdominal cramps, distension, and sluggish bowel movements. She was seen in consultation. Flat plate of the abdomen showed gas in the small bowel. The barium filled colon was negative. She had been treated for 6 days by Levine suction with partial relief. A tentative diagnosis of small bowel obstruction was made and the patient prepared for surgery. At operation the entire ileum and lower jejunum were edematous, hyperemic and dilated twice normal. After careful search a polypoid tumor 0.5 cm. in diameter was palpated in the upper ileum. This lesion had apparently been the focal point for intussusception. It was removed through an enterostomy incision and the patient made an uneventful recovery.

Pathological Diagnosis: Adenomatous polyp.

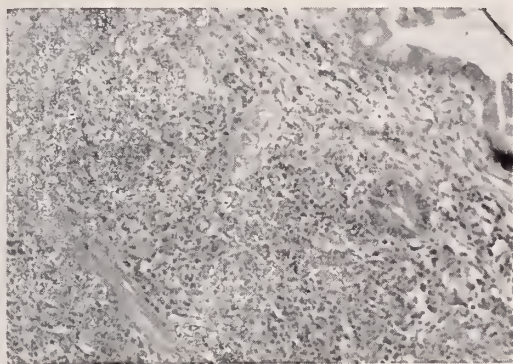


Figure No. 1; J. S.

In malignant lymphocytoma the mucosa is invaded by pale staining cells somewhat larger than lymphocytes. These cells contain irregular nuclei and extend into the muscular layers as solid masses completely replacing the muscularis mucosa.

These two cases represent benign adenomas of the ileum causing symptoms of small bowel obstruction. It is known that small intra-luminal tumors may produce dramatic intussusception. This is particularly well illustrated by Case 2 in which the tumor was 0.5 cm. in diameter.

Leiomyomas

Leiomyomas are next in frequency to adenomas. They are predisposed to necrosis, hemorrhage, and sarcomatous change in 10 to 20% of the cases.

Case 3. L. N. A 29-year-old white female was admitted 3/4/44 with a 12 months history of the repeated episodes of tarry stools. She was first hospitalized in February 1943 and again six months later. Two months prior to our examination the patient was hospitalized a third time because of tarry stools. Complete x-ray and blood studies were normal except for secondary anemia. During the year she had lost 15 pounds in weight, and complained only of weakness. Admission findings revealed a chronically ill, pale, white female. There was moderate tenderness in the lower left abdominal quadrant without tumor, tenderness or rigidity. Bowel sounds were normal. Stools were tarry. Pelvic examination was negative. Initial laboratory work included: RBC 3,600,000; Hb. 8.2 gm. (53%); WBC 5,000; with a normal differential count. The normal blood volume was restored by 1,500 cc. of whole blood. At operation on 3/13/44 a slightly lobulated, pedunculated tumor was found in the terminal ileum.

It measured 6 cm. in diameter, arose from the anti-mesenteric border of the wall of the small bowel, and projected into the lumen. There was no ulceration of the overlying mucosa. Microscopically, it appeared as a firmly encapsulated mass composed of spindle cells in whorls and bands interlacing in a fibrous stroma. The tumor was highly vascular, with many large vessels and dilated thin walled sinuses. The character and disposition of the blood supply in this tumor adequately explains its hemorrhagic tendency.

Lipomas

Lipomas were not encountered in our experience. This lesion is found beneath the mucosa or between the muscle layers. Aside from their gross lobulated appearance lipomas are indistinguishable from normal fat. In Smith and Mayo's (5) review of 67 lipomas of the small intestine 53 were asymptomatic.

Fibromas

Fibromas are innocent connective tissue tumors having origin from the sub-mucosal or serosal connective tissue, and in their pure form are quite rare. According to Strohl (6) only 34 cases have been reported.

Benign Tumors

Benign tumors of vascular origin are exceedingly rare in the gastro-intestinal tract. However, their incidence is greater in the small intestine. In 1947 Lazarus and Marks (7) found recorded in the

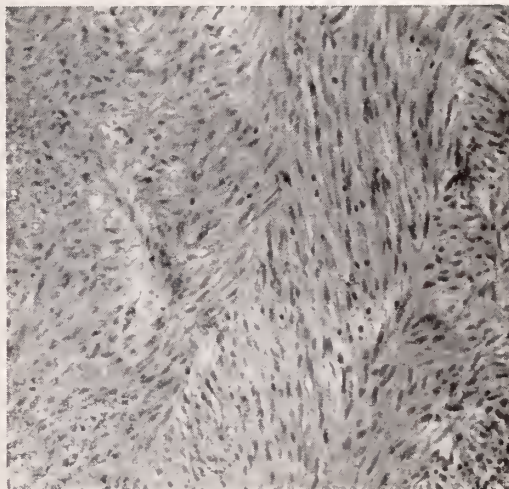


Figure No. 3; L. N.

A leiomyoma is composed of whorls and interlacing bundles of smooth muscle fibers.

literature only 38 such cases. As to be expected profound intestinal bleeding is the most common symptom. Pancreatic rests when encountered are most often in the duodenum.

Neurogenic Tumors

Neurogenic tumors are among the rarest benign tumors of the small intestine. We have none of this type to report, but would like to mention one case of massive neurosarcoma of the mesentery with attachment to the small intestine, which required resection of a large segment of the small bowel including a tumor 15 cms. in diameter. The pathologist thought the bowel involvement was most likely secondary to the mesentery, but could not definitely exclude its origin from the bowel.

Malignant Tumors

Malignant tumors of the small bowel, according to a review in 1945 by Shallaw, Eger and Carty (8) of 137,174 autopsies, occurred in 0.1% of the cases. In the same study, large bowel malignancies were 36 times more frequent. Other similar series report the incidence of primary malignancy of the small bowel to vary from 2 to 6%. These lesions occur predominately in middle age, and in the ratio of 2 to 1 in men. The growth spreads around the lumen or into the mesentery and causes obstruction by virtue of simple occlusion rather than intussusception. Metastases are found at operation in 20 to 25% of the cases. The symptoms are usually insidious, unexplained anemia, weight loss, weakness and vague dyspepsia. Occasionally the onset is sudden with obstruction, hemorrhage or perforation. Lesions in the duodenum may simulate a peptic ulcer, or when they obstruct the common duct become indistinguishable from primary lesions of the pancreas. Carcinomas are approximately twice as frequent as sarcomas and are found more often in the duodenum than the other segments of the small bowel. Carcinoid or chromaffin tumors may be either benign or malignant.

Case Reports

Case 4. L. N. O. A 42 year old white female was seen in October, 1947. For several years previously, she had been treated for anemia. Diarrhea and frothy stools, vomiting and weight loss of 25 pounds, were her presenting symptoms. Upper gastro-intestinal x-rays were reported as

negative. The R.B.C. were 1,750,000, Hb. 4.4, and stool 3 plus guaiac on several examinations. She was discharged with a diagnosis of non-typical sprue and acute hepatitis. She was re-admitted one month later because of an increasing jaundice with vomiting and malaise. With a pre-operative diagnosis of obstructive jaundice, probably carcinoma of head of pancreas, the patient was explored. The gall bladder and common duct were dilated four times their normal size, and a firm mass 5x8 was palpated in the region of the head of the pancreas. An anterior cholecystenterostomy was performed. Eight days post-operatively the patient developed an acute small bowel obstruction in the proximal jejunal loop.

This was relieved by entero-enterostomy. The patient expired 1/22/48. Autopsy findings revealed a large tumor mass 75mm. in diameter involving all layers of duodenum, however, showing no invasion into the pancreas. The tumor was predominantly a squamous cell carcinoma with zones of adenocarcinoma. A diagnosis of infraampullary adenoacanthoma was thus established.

The insidious onset, and a long-standing anemia due to chronic blood loss is characteristic in this type of case. However, the picture was complicated by frothy stools and diarrhea which often indicate far advanced carcinoma of the head of the pancreas and act to serve as

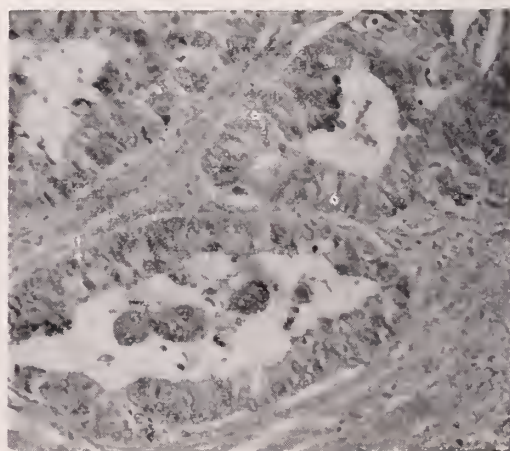


Figure No. 4; L. N. O.

Adeno-carcinomas are usually composed of highly anaplastic cells with irregular hyperchromic nuclei and frequent mitotic figures; showing a tendency to acini formation, and extending early to involve all layers of the bowel wall.

a differential point between it and infra-ampullary duodenal cancer. The common duct and pancreatic duct were occluded from extrinsic pressure rather than invasion and thus account for the jaundice, the dilated common duct and gall bladder and the pancreatic insufficiency. The persistence of 3 plus and 4 plus blood in the stool and severe anemia can in retrospect point more to a primary duodenal lesion than a pancreatic neoplasm.

Case 5. Mrs. D.R. A 70 year old white female underwent an obstructive resection for a large adenocarcinoma of the rectosigmoid without metastases in September, 1946. Four years later she was hospitalized because of intermittent severe cramping abdominal pain, nausea and vomiting of 10 days duration. R.B.C. 4,600,000; Hb. 82%; W.B.C. 7,000; 57 polys; 43 lymphs, proctosigmoidoscopy was negative. X-ray pictures were compatible with small bowel obstruction. At operation a 5 cm. annular, firm, circumscribed lesion was found in the ileum 9 cm. from the ileocecal valve. The terminal ileum and right colon were resected. The histologic diagnosis was adenocarcinoma, grade 3 with extension to the mesentery and lymph nodes.

Following an interval of four years of good health, this patient developed symptoms of acute bowel obstruction. An annular constricting lesion was found in the ileum. Despite its relatively short symptomatic course metastases were present in the dependent lymph nodes and adjacent mesentery. This case illustrates the occurrence of multiple primary carcinomas. Although symptoms may be prominent for only a short time, small bowel carcinomas as exemplified here usually involve the regional lymphatics in 20-25% of all cases at the time of exploration. For this reason wide or radical excision of the tumor and its mesentery is prerequisite in the early surgical eradication of these lesions. It is a good and sound policy to do adequate resection in all small bowel tumors.

Sarcoma

Sarcoma of the intestine is a rare disease. The term includes fibro or spindle cell sarcoma, leiomyosarcoma, myxosarcoma and the larger lymphoblastoma group. At the mention of lymphoblastoma, interest is usually centered on large nodes in the neck, mediastinum, abdomen or spleenomegaly, and not a single lymph

follicle in the small bowel. McSwain and Beal (9) found the incidence of lymphoblastoma of the entire gastro-intestinal tract to be 1% of all malignant lesions, an average of a case to every 51 cases of carcinoma. Broders (10) is of the opinion that malignancy may arise primarily as a local lesion in the stomach and ileum.

The usually accepted classification includes 4 groups, namely, small round cell lymphoblastoma, large or reticulum cell lymphoblastoma, Hodgkins lymphoblastoma, and giant follicular cell lymphoblastoma.

Prognosis in these cases at the time of operation is difficult. Some of the tumors seem to be truly local lesions. In these extensive resection with or without x-ray therapy may be curative. In other cases neoplastic imbalance is apparently present in all the lymph tissue and generalized disease may soon become manifest. In general, lymphoblastomas of the gastro-intestinal tract in young patients have a poor prognosis.

Case 6. T. A. A 56 year old white man was admitted to the hospital January 10, 1950 with a 5-month history of progressive weakness and weight loss of 54 pounds. Three and one-half months prior to admission he noticed progressive painless jaundice associated with clay colored stools and dark urine. Physical findings on admission revealed a chronically ill, jaundiced white male in no acute pain. The liver was palpable 3 cm below the right costal margin. The RBC. was 3,300,000; Hb. 10 gm.; WBC-12,500; neutrophils 78; lymphocytes 18%; monocytes 4; icterus index 25. Liver function tests and amylase were essentially normal. Repeated stool examinations for blood were negative. On x-ray examination a mass appeared to be protruding into the duodenum. This defect was slightly more distal than in a case of ampullary malignancy, and it was felt was consistent with a malignancy of the head of the pancreas. At operation on January 30, 1950, the gall bladder and common duct were greatly enlarged. The liver, stomach and spleen were normal. A hard, firm, rounded mass the size of a golf ball was found in the region of the head of the pancreas. A small gland found near the duodenal end of the common duct was removed and reported negative on frozen section. A Whipple operation was done. Pathological findings included a 2.5 cm. firm rubbery tumor located within the posterior wall of the duode-

num below the ampulla of Vater. The overlying mucosa was intact. The common and pancreatic ducts emptied separately into the ampulla, their entrance being compressed from beneath by the tumor mass. Microscopically, a diagnosis of leiomyosarcoma of the duodenum was made. Post-operatively the patient developed a pancreatic and jejunal fistula, both of which closed spontaneously.

This case represents a well-encapsulated malignant tumor which, because of its location, produced signs and symptoms of the more common occurring carcinomas of this region. Its origin was, no doubt, in a benign leiomyoma. For this reason benign tumors, particularly leiomyomas, require excision once the diagnosis has been established. The prognosis in this case is far superior to epithelial growths arising in the same region.

Case 7. A white female 64 was first seen 5/23/45. She gave a 6 months history of vaginal bleeding occurring 20 years after the menopause. The chief physical finding was a friable, bleeding lesion involving the whole cervix. A diagnosis of epidermoid carcinoma, grade 3, was established by biopsy, and the patient received radium and x-ray therapy, with good effect. She was seen again 7/24/45, was then disturbed by recurring attacks of cramping pain in the region of the umbilicus which radiated around the abdomen into both sides and up between the shoulders. This distress antedated by 6 years the cancer of the cervix. Physical examination was negative, the vaginal vault was occluded from the effects of radiation therapy, there was no evidence of recurrence. The gall bladder was non-functioning by x-ray.

The patient was seen again 11/16/45 and still complained of girdle like abdominal pain. The physical examination was essentially negative. The next visit was on 5/17/46 and the abdominal pain was less frequent. Physical examination revealed no abnormalities. The patient continued to report every 6 months for vaginal checks because of the previous cancer of the cervix. She remained in fair health until 8/30/50 when she became acutely ill with severe abdominal cramps, nausea, vomiting and distension, and gave the appearance of acute intestinal obstruction. She was admitted to the Good Samaritan Hospital 3 days later, decompression was started, and intravenous fluids

and blood given in preparation for surgery.

The pre-operative diagnosis was intestinal obstruction post irradiation stricture or metastatic carcinoma from the cervix. On exploration a mass the size of a large grapefruit was found in the cul-de-sac. It was composed of multiple loops of small intestine and a greatly thickened mesentery. The liver and other viscera were free. A resection included the terminal 6 ft. of ileum, and a wide segment of its mesentery.

Pathological diagnosis was leiomyosarcoma arising in the wall of the ileum with no metastatic nodes in the adjoining mesentery. The patient died August, 1951 of cardiac failure.

This case is of interest for several reasons. First, she had obtained a five year cure of a grade 3, stage 3, carcinoma of the cervix. Second, recurring intestinal obstruction for about 11 years would indicate a benign leiomyoma at the onset. Third, the pathological diagnosis of leiomyosarcoma when the patient eventually accepted surgery after complete obstruction, confirms the impression that leiomyomas tend to become malignant. Finally, this case as in another of our series is an example of multiple distinct malignancies.

Case 8. J. S. A 16 year old white male admitted 3/4/49 with a three weeks history of recurring sharp cramping periumbilical epigastric pain, nausea and vomiting. Two hours prior to admission he developed mucous diarrhea and localization of the pain to the right lower quadrant. He had moderate tenderness and rigidity over McBurney's point. The leucocytes were 14,600 with 66 polys, 44 lymphs, RBC 4,800,000, Hb. 89%. A diagnosis of acute appendicitis was made. At operation an intussusception was found involving the terminal ileum and the caecum to the level of the hepatic flexure. A 2.5 cm. nodular intrinsic tumor mass was found 20 cm. from the ileocecal valve at the origin of the intussusception. Resection of the lower ileum with the lesion was performed.

Pathological Diagnosis was lymphocytoma of the terminal ileum.

Case 9. R. C. A 5-year-old white female was hospitalized elsewhere in May 1951 because of intermittent abdominal cramps with diarrhea and a mass in the lower abdomen. With a pre-operative diagnosis of small bowel obstruction, she was ex-

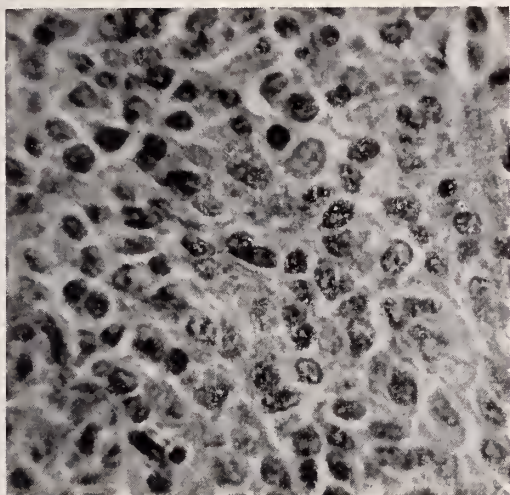


Figure No. 2; R. C.

A reticulum cell sarcoma is composed of cells resembling large lymphocytes, with large pleomorphic nuclei and frequent mitotic figures. A delicate reticulum forms a stroma about the cells.

plored. A large tumor mass 10 x 8 x 12 cm. in size was found involving the terminal ileum. Two feet of terminal ileum and the right ovary were resected. The tumor was consistent with a reticulum cell sarcoma being composed of cells resembling large lymphocytes with large pleomorphic nuclei and frequent mitotic figures. Four months later because of recurrence of diarrhea and abdominal mass, patient was admitted to our service. A large, firm, ballotable non-tender supra-pubic mass was palpated. The abdomen was distended, peristalsis were hyperactive. The abdominal mass was palpated on rectal examination and found to be fixed, markedly narrowing the rectum from extrinsic pressure, 4" above the dentate margin. The previous microscopic sections were reviewed, and x-ray therapy undertaken. In the course of 8 days 1,000 R.U. were applied to both the anterior and posterior areas of the abdomen. Two days following the onset of therapy, the mass was one-half its original size. At the completion of therapy the mass had completely disappeared. Patient was asymptomatic.

Case 10. H. L. D. A 55-year-old white male was admitted to the hospital on January 31, 1951. He had been treated intermittently for 5 years for anemia with liver shots and vitamin therapy. Patient dated his complaints to World War No. 2 when working in a T.N.T. factory he was laid off on numerous occasions because

his R.B.C. was below 4,000,000. Two years before admission he complained of vague epigastric cramping pains occurring one hour P.C. without associated nausea, vomiting, diarrhea, melena or tarry stools. Physical findings were negative except for pallor. Hematologic studies indicated a blood loss anemia. Barium studies of the gastro-intestinal tract revealed an irregular filling defect of the distal ileum adjacent to the caecum. At operation a large, firm, freely movable mass 15x20x15 cm. was found involving the terminal ileum and extending to the ileocecal region. The mass with the terminal ileum and right colon were resected. The patient had an uneventful convalescence and received postoperative x-ray therapy. The diagnosis was reticulum cell sarcoma.

Case 11. W.J.R., a 58 year old male was seen in consultation on 3/7/44. His history indicated the onset of his illness to be October, 1943 with vague stomach trouble. After x-ray investigation, a diagnosis of duodenal ulcer was made and he was placed on ulcer management with little or no relief. Appetite continued to fail, and weight loss was progressive. He was admitted to the hospital on 3/1/44. Complete x-ray gastric-intestinal study, stomach, duodenum and colon was done with negative findings. Two days before my examination a mobile, easily displaced mass approximately 7.5 cms. in diameter was found in the lower left abdomen. A probable diagnosis of malignant small bowel tumor was made, and preparation for surgery with transfusions was started. The following night the patient became acutely ill with severe abdominal pain, vomiting and went into shock. He was explored as an emergency. Generalized peritonitis was present, and the tumor previously felt was a large mass in the small bowel with a perforation 1 cm. in diameter. The adjacent mesentery was greatly thickened by an infiltrating tumor. A palliative resection was done, but the patient died on the third post-operative day. Diagnosis: Reticulum cell sarcoma.

The preceding four cases may be grouped under the heading of lymphoblastomas. Case 8 demonstrates the effectiveness of surgical treatment in the localized solitary lesions. Case 9 reveals the response to x-ray therapy in some cases of widespread disease. Case 10 is an example of combined surgical and x-ray treatment. Case 11 may be cited as illustrative of the tendency of malignant lesions of the small bowel to perforate.

Carcinoid Tumors

Carcinoid or chromaffin cell tumors have a characteristic, yellow appearance, occur more frequently in the appendix and terminal ileum, and formerly were considered benign. Recent evidence however, seems to show that metastasis occur in 25-50% of the cases. With early diagnosis and adequate excision one can expect better results from this lesion than in any other intestinal malignancy.

Case Report

Case 12. F. W., a 49 year old white female, was first seen 6/17/48. Three days previously she had been awakened by severe epigastric pain associated with nausea and vomiting. These symptoms subsided the following morning, but she developed diarrhea and weakness. The following day a similar attack of pain occurred with soreness in the right upper quadrant. On examination the abdomen was soft with slight epigastric tenderness. WBC. 10,700; 71% polys; 29% lymphs; urine negative. The following day there was disappearance of symptoms and positive findings. Three months later the distress recurred acutely with pain localized in the right lower quadrant. There was no diarrhea, melena, nausea or vomiting. W.B.C. 11,200; 88% polys; urine negative; temperature 99.2°. With a preoperative diagnosis of acute appendicitis, operation was performed. A small, firm tumor 2 cm.

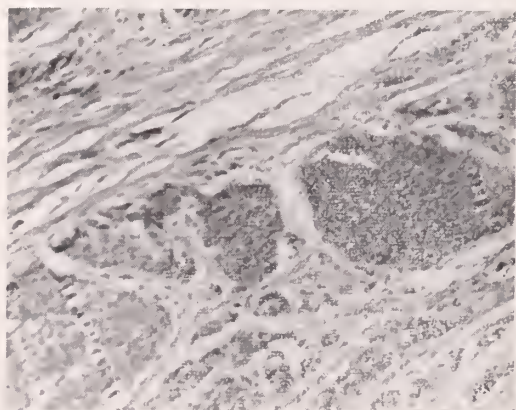


Figure No. 5; F. W.

A typical carcinoid tumor is composed of masses and clumps of spheroid cells with round distinct nuclei lying in a fibrous stroma. Although a capsule may be present, the cells are often found beyond it invading the muscularis, serosa, or adjacent mesentery.

in diameter was found in the terminal ileum, on the anto-mesenteric border puckering the serosa. There were no metastasis palpable in the mesentery and no nodules in the liver or spleen. A wide resection was done. The tumor had a yellowish, lobulated appearance. Microscopally, it was composed of small strands of uniform tumor spheroid cells with prominent, uniform nuclei and distinct nucleoli diagnostic of a chromaffin tumor of the terminal ileum.

Conclusion

In conclusion, we would like to mention the occurrence of a single endometrial implant in the terminal ileum. It circumscribed the bowel, gave rise to obstructive symptoms, and grossly simulated a malignant lesion. This case is not to be included in our series of small bowel tumors, but is presented because of its unusual interest and value in differential diagnosis.

Summary

1. We have presented a series of 12 cases of small bowel tumors, including benign and malignant lesions.

2. The symptoms more often are those of obstruction or gastro-intestinal bleeding; however, the clinical picture is not always clear cut and the diagnosis may be delayed, for months in the malignant lesions, and often years in the benign lesions.

3. We suggest wide resection of the bowel and the adjacent mesentery in all small bowel tumors in order that the treatment be adequate should the microscopic diagnosis be malignant tumor.

4. There were 2 cases of leiomyosarcoma with histories of sufficiently long duration to suggest the possibility of benign tumors at the onset.

5. Of added interest were 2 cases of multiple malignancies; one a carcinoma of the colon; and subsequently a carcinoma of the ileum; and second, a carcinoma of the cervix which later returned for treatment of a leiomyosarcoma of the small bowel.

BIBLIOGRAPHY

1. Ladd and Gross: Abdominal Surgery of Infancy and Childhood, Ed. 1. Philadelphia 1941, W. B. Saunders Co.
2. Eliot E., Jr., and Corseaden, J. A.: Ann. of Surg. 53: 169-1911.
3. Mallory (Quoted by Shafer, Paul W.): Pathology in General Surgery, Chicago, Illinois, 1950, University of Chicago Press.
4. Raiford, T.: Tumors of the Small Intestine, Arch. Surg., 25: 122 and 321, 1932.

5. Smith, F. R., and Mayo, C. W.: Sub mucous Lipomas of the Small Intestine. *Am. J. Surg.*, 80: 922, 1950.

6. Strohe, E. L., Diffenbaugh, W. G., and Sarver, F. E.: The Surgical Significance of Small Bowel Tumors, *S. G. & O.*, 93: 209-214, 1951.

7. Lazarus, J. A., and Marks, M. S.: Benign Intestinal Tumors of Vascular Origin, *Surgery*, 22: 766-777, 1947.

8. Shallow, T. A., Eger, S. A., and Carty, J. B.: *Am. J.*

Surg., 66: 110-122, 1944.

9. McSwain, Barton, and Beal, J. M.: *Ann. of Surg.*, 119:108-123, Jan., 1944.

10. Fryfogle, Jas. D., and Kiernan, Paul C., and Dockert, Malcolm, B.: *Proc. Staff of Mayo Clinic*: 21:161, April 17, 1946.

11. Sugerbaker, E. D., and Carver, L. F.: *J. Am. M. Ass.* 115: 17 and 122, 1940.

Civil Defense Health Services and Special Weapons Defense

NORVIN C. KIEFER, M. D., M. P. H.

Director, Health and Special Weapons Defense Division, Federal
Civil Defense Administration

Washington, D. C.

It is a privilege to address the Kentucky State Medical Association today on the subject of Civil Defense. Physicians have vitally important active duties in Civil Defense. In addition, they are respected members and leaders of their communities. They have undeniable influence on community projects, and Civil Defense must, today, be among the most important of those projects.

Your State association undoubtedly consists of physicians from your larger cities, from your smaller towns, and from your wide, rural, agricultural areas. Many of you have heard of the term "critical target area" and know that you do not live in or nearby one. Why, then, should you be interested in Civil Defense? Is there really any pressing need for your services in Civil Defense?

Responsibilities of Health Agencies

The answer is that in the event of another war, every physician, nurse, dentist, veterinarian, or other member of one of the many health professions will have a great responsibility, an important role, in national defense: in the armed services, in essential medical care for civilians, and in Civil Defense. If widespread enemy attack on American civilians is successful, one of these three functions, Civil Defense, alone may demand more medical and other health personnel than we have in the entire country. Therefore, the services of every available member of the health professions must be assured. No matter how small a community you live in, you have an obligation to your country to participate in Civil Defense. Your small town may organize a mobile surgi-

cal unit which would staff an improvised hospital in Louisville or in San Francisco. Your own little 50-bed hospital might take in over a hundred civilian casualties from an attacked city fifty miles distant. Remoteness of your community from direct enemy attack in no way relieves you of responsibility, rather, it increases your obligation to serve because following enemy attack you are far more likely to be uninjured, untouched by family tragedy, than are your colleagues in metropolitan areas. Don't forget, it would be your war just as much as theirs! And, if our country was devastated or defeated, you would suffer just as much as they.

My remarks today apply to each of you, no matter what part of the State you come from, no matter what specialty, if any, you practice. Civil Defense health and special weapons defense services are your responsibility—individually and collectively.

Need for Civil Defense

Keeping this premise in mind, let us consider next the need for Civil Defense. Can Russia really attack our civilians? A few facts and authoritative opinions should suffice to answer this question, to answer affirmatively and with little comfort to any of us.

Russia's readiness is compounded of possession of the atomic bomb and ability to deliver it. Russia not only has the secret of the atomic bomb; she has atomic bombs. Could she deliver them?

General Vandenberg and other top officers of the United States Air Force have assured us that the Russians can launch today more than 400 TU-4's which are B-29 type long-range heavy bombers¹. They could carry enough atomic and conven-

¹Read before the Annual Meeting of the Kentucky State Medical Association in Louisville, October 7-9, 1952.

tional-type bombs to hit all of our major, metropolitan industrial areas².

Even after our air defenses have been greatly improved we could not hope to stop more than 30% of attacking planes. At least 70% would get through¹.

As long as a distant horizon of eternal peace is obscured by dark clouds of international tension, aggression, and lust for conquest, we must be constantly vigilant for our national security and safety. Another war will truly be a total war in which American civilians will be in the front lines of battle, and in which our civilian casualties might well exceed in number the total strength of our armed forces. Protection of civilian lives and of national security, therefore, demands a strong civil defense just as it requires a powerful military force.

As a part of that civil defense, we must prepare health services, as thoroughly and as expeditiously as we can, to protect or save human lives, to relieve suffering and misery, and to return workers to war industry. Much has been accomplished, but a tremendous amount remains to be done before we can say that we have a good nation-wide civil defense health and special weapons defense organization. Once such an organization has been achieved—and it must and will be—another problem will arise. As long as any threat of war exists, such an organization will have to be kept constantly in readiness and continuously reoriented to new problems which arise.

New workers will have to be recruited and trained as others die or become physically unable to continue active participation. This process might have to go on for decades. But if this is the price of national survival, we must be willing to pay it.

The Atomic Bomb

Let us consider now the potential forms of enemy attack which we must expect and some of the chief preparations we must make against them.

The atomic bomb is probably the most frightful weapon ever devised by man. Do not forget, however, the toll in human lives and in property exacted by high explosive and incendiary bombs before the atomic bomb was used. Incendiary bombs caused about 80,000 deaths in Tokyo in a single day in 1945. In a future war our cities would be attacked with

these weapons, used alone or in combination with other methods of warfare.

The first atomic bombs used each had the explosive equivalent of approximately 40,000,000 pounds of TNT. It is this enormous and unprecedented explosive force that makes the atomic bomb such a terrible threat to metropolitan civilian populations. The most awesome challenge of this bomb to us, as physicians, is not its bizarre pathological effects on its victims but, rather, the fact that it is capable of producing, within a few seconds, tens or even hundreds of thousands of living and dead casualties in a modern American city. This is not supposition; the atomic bomb has been used. Seven years ago, in two Japanese cities, its destructive power was demonstrated in shattering terms. We estimate that about 60% of atomic bomb casualties among civilians would have either flash or flame burns, 50% would have mechanical trauma, and as many as 20% might have radiation sickness. Even more significant, however, is the current estimate that a successful, extensive enemy attack on our civilians could produce, throughout the nation, as many as 11,000,000 living and death casualties. These are staggering figures. Civil defense in the atomic age is a staggering problem!

Realistic Planning Essential

The sooner we accept these awful facts, the sooner will we become realistic in our planning. Some civil defense plans are antiseptically redolent of starched white uniforms; glistening white hospital corridors; immaculate, tiled surgical amphitheaters; stainless steel autoclaves sweating steamily to sterilize ever increasing amounts of white gauze from neat shelves of surgical supplies; and of sleek, speeding ambulances, led with screaming sirens by motorcycle escorts.

This is a cheering picture of modern medicine in action for a hundred casualties. Let us recognize now that following an enemy attack that produces 50,000 living civilian casualties in a single city, with roaring fires, mountains of rubble, blocked highways, hopelessly snarled traffic, confusion, hysteria, and panic, there would be utter chaos. The rapidity and the extent to which order could be restored would depend on carefully planned, recruited, trained, organized, and practiced emergency civil defense services. Medical services traditionally are averse to any

discipline suggestive of regimentation. Yet these are the services which will need the highest possible degree of disaster organization and which do not now have it.

Extensive First Aid Organization

An extensive first aid system must be organized, one which could be instantaneously mobilized and activated. Lost minutes in first aid services will be measured in lost lives. Using first aid stations with the work capacity recommended in our forthcoming manual on this subject, 12 such stations per 100,000 population of the target area are required. Each station requires 232 people, including 8 professional persons, or over 2,000 personnel per 100,000 population. Just for the first aid system, just for the first emergency life-saving measures to casualties, just to get started with management of injuries!

To return to our hypothetical example of 50,000 living casualties, and remember that our huge metropolitan areas might have many times that number, let us analyze the figures more closely to determine our hospital problem. Of the 50,000, over 30,000 would require varying periods of hospital care.

The bed capacity of existing hospitals could, on an average, be tripled by crowding patients into rooms, corridors, and every other available space. Unfortunately, because a substantial percentage of city hospital facilities is found in the heart of the metropolitan area, much of their bed capacity would be lost after enemy attack on such a city.

In general we estimate that only 15 to 25% of patients needing hospitalization could be accommodated in existing hospitals, using those in and near critical target areas. Therefore, improvised hospitals must be established immediately after attack, and many patients would have to be evacuated to hospitals perhaps hundreds of miles distant.

Improvised Hospital

To establish improvised hospitals in school buildings and other suitable facilities will require careful pre-attack selection of such buildings, with an adequate number of alternates. Maintenance and housekeeping crews must be recruited and instructed in their civil defense emergency duties. Plans for instantaneous clearing of such buildings and bringing in hospital equipment must be made now.

Mobile Surgical Units

Mobile surgical units to help man these hospitals must be recruited all over the country, particularly in non-target areas. These are huge tasks—but without them, over 75% of patients who needed hospital care would not get it and, as a consequence, would die, would suffer horribly and unnecessarily, would have protracted convalescence, or would have preventable permanent disabilities. We cannot risk any of these possibilities.

Development of all of these services requires training and then frequent drills and exercises, until every health service's member, professional or other, knows exactly where to report, what to do, and how to do it in the event of enemy attack. Technical training also is essential but will be of little avail if thorough organizational training has not been provided.

Professional and Technical Health Workers

Civil defense training of professional and technical health workers must be planned and conducted so as to consume a minimum of their hours. Yet it must inform them how to adapt their existing knowledge and skill to rapid screening and temporary life-saving measures for a constant, terror-stricken, agonizing flow of suffering humanity with injuries ranging in character from trivial to hopeless, from familiar to novel. Some orientation to clinical phenomena produced by special weapons should be provided, but the training should be well-balanced, without unwarranted emphasis on these new things.

Many physicians, as well as the dentists, nurses, and veterinarians who will work in the first aid system will want to review traumatic surgery and kindred subjects related to mass casualty care. For them, one of our forthcoming publications, "Emergency Treatment in Major Disasters," prepared by the National Research Council, will be extremely helpful.

For the lay volunteers for the first aid system, training is available through Red Cross civil defense first aid training courses.

First aid systems and hospitals could not be operated during a civil defense emergency without certain medical and surgical supplies and equipment. The total normal commercial and hospital inventories of surgical supplies for civilian use

is too small to be of significant help to civil defense.

We, therefore, were faced with the need to build civil defense reserves of such supplies. Although we are a long way from having adequate supplies stored today, I can report a good start to you. The States, using Federal matching funds, have purchased supplies for about 6,500 first aid stations and limited additional reserve supplies for the first few hours of hospital care.

Federal Reserve Stores

Federal reserve stores are being established, and I think you will be interested in a brief summary of the items ordered for Federal Civil Defense warehouses. Many of them have actually been delivered.

1. Surgical supplies, on an austerity basis, for the first six post-attack days for the care of 2,000,000 surviving casualties³.

2. 2,000,000 blood donor sets, recipient sets, collecting bottles, and accompanying grouping and typing serums.

3. One and one-quarter million paper blankets.

4. 7½ million capsules each of aureomycin, terramycin, and chloramphenicol, and over 1½ million intravenous doses of aureomycin and terramycin; 5 million doses of penicillin in oil, one-quarter million doses of crystalline penicillin; and other antibiotics.

5. Nearly 200,000 folding cots.

6. Over a million units of dried blood plasma.

7. 300,000 units of dextran and 1,200,000 units of polyvinylpyrrolidone. These are plasma expanders which Dr. Mills will describe to you later.

I stated before that this is only a start. Our appropriations would not allow us to do more. The surgical supplies are for only 2,000,000 casualties; we must have considerably more ready. They are supplies for only the first week of casualty care; they must be expanded to provide at least 3 weeks of care. And many items, notably equipment for improvised hospitals, have not been provided at all. Another defect in the Federal supply program, also a result of inadequate funds, is our inability to establish a sufficient number of warehouses. The advantage of a national civil defense emergency health supply system is predicated on ability to begin delivery of Federal supplies within about 4 hours, to

back up those in any target area. The Federal Civil Defense Administration has been able to establish only about one-fourth the total number needed, and, consequently, many target areas are considerably beyond 4-hour shipping distance of the nearest Federal civil defense warehouse. These several defects are discouraging, but there is a bright side to be considered. By June 30, 1952, the States and the Federal government had placed about 80 million dollars of orders for health supplies, and another 30 million dollars probably will be added before next June 30. I doubt that there was a nickel's worth of such orders a little over one year ago!

I want to consider briefly some special health and service problems of civil defense, particularly those related to special weapons defense. Colonel McDonnell is going to discuss technical aspects of atomic warfare, and I, therefore, shall skip over this subject to talk about biological warfare defense.

Biological Warfare Defense

This type of attack, which Rosebury has called "bacteriology upside down,"⁴ could be used against people, animals, or crops. Against humans, mass attack by biological weapons is possible by employing aerial or submarine-launched bombs or projectiles, aerosol sprays, and gross contamination of water supplies. Leaders and other key people could be attacked by limited or localized contamination of food, water, and ventilating systems. Practically any infectious disease agent could be used. The chief qualifications of an effective biological weapon would seem to be: a high infectivity rate; low natural or acquired resistance of most of the attacked population; either a high fatality or high morbidity rate among those infected; stability of the organisms; and adaptability of the organism to mass production and distribution. Not only exotic diseases such as plague and cholera could be used effectively, but certain diseases already existing in this country, as psittacosis, Q fever, tularemia, brucellosis, typhus, and many others could also be devastatingly employed.

The farms as well as the factories of America have played a major role in deciding the outcome of the first two World Wars. Biological warfare against our animals is perhaps an even greater threat than biological warfare against people.

Artificially-induced epizootics probably

would spread more rapidly and would be more difficult to control than epidemics among humans.

An uncontrolled outbreak of foot-and-mouth disease might reduce essential animal products by as much as one-fourth⁵. Rinderpest, fowl plague, Newcastle disease, anthrax, and hog cholera variants are examples of other devastating animal and poultry diseases which conceivably could be intentionally introduced. Successful attacks on our animals not only would seriously reduce our meat and dairy food production but, in addition, would decrease or even cripple our production of such indispensable items as wool, leather and hides, and certain life-saving medicinal products.

Still another form of biological warfare could be the intentional introduction of rusts, fungi, growth regulators, and related substances that might result in devastation of our crops. The consequences to our food supplies, our food animal production, and our industrial production could easily lose a war of the future for us.

Chemical Warfare Defense

Now let us consider chemical warfare defense. Our civil defense plans are based almost exclusively on enemy use of only one type of poison gas: nerve gases. These are colorless and odorless, and usually non-persistent. They inhibit cholinesterase and thereby prevent normal body destruction of histamine.

This unsuppressed histamine overstimulates parasympathetic nerve endings and produces within a few minutes any or all of: broncho-constriction to the point of rapid suffocation, rhinorrhea, photophobia and ciliary contraction, involuntary muscle contractions, convulsions, vasomotor collapse, and cardiac arrest. Surely I do not need to suggest the additional emotional disturbances likely among the unaffected population which witnesses these frightful symptoms suddenly produced by an odorless, unseen, unheard monster.

The chief forms of treatment of nerve gas poisoning are Holger-Nielsen type artificial respiration and parenteral atropine in heroic doses of one-thirtieth grains, repeated at short intervals. It should be apparent to you that this type of management is attended by logistical difficulties that could never be solved adequately, particularly when it is re-

membered that this weapon allows its victims only a few moments period of grace before killing.

Prevention of Casualties

No, the answer to nerve gas attack is prevention of casualties. This can be accomplished only by provision of gas masks to all civilians in target areas. Through work of the Chemical Corps of the United States Army, we now have prototypes and soon will have production of a cheap, simple gas mask. This mask will protect a person long enough to allow him to escape from the rather limited area of the city in which a nerve gas bomb would produce lethal concentrations of the gas.

The atrophine and related treatment methods would then be necessary only for a greatly reduced number of people who neglected to have their masks with them or who didn't put them on quickly enough.

It is our belief that these protective measures could reduce by about 75% the number of civilian casualties and fatalities that would otherwise occur as a result of nerve gas bombing.

Is it worth the expense and trouble of a gas mask, drug supply, and resuscitation training program to save the lives of three out of four members of your family?

Public Health Protection

There is one more large category of civil defense health and special weapons defense services which I must discuss. It is one of the very most important, yet it is probably the most neglected by the largest number of you. Public health protection in a civil defense emergency! Neglected because it is taken for granted. Your water supplies, your food and food-preparation facilities, your whole environment are relatively safe from health hazards. But you have no right to assume that they would continue to be safe following enemy attack. Damaged or even sabotaged water treatment plants, water mains, and sewerage systems; unsanitary mass food-preparation and serving centers run by inexperienced, untrained personnel; radiological, bacteriological, or chemical contamination of food, milk, water, and the air and other environment; serious outbreaks of communicable disease in emergency housing and shelter centers.

All these and many other public health hazards, uncontrolled, could add greatly to an already overwhelming number of sick, suffering and dying people, Americans, your and my friends, neighbors, wives, and children. Before you form your answer—that you have a good health department—please ask that department to summarize for you the size, complexity, and variety of the tasks it would face. Then examine the size of the staff of your health department; put that small group of people against their enormous wartime responsibility. Then asks yourselves: unless many of you have been oriented in how you can reinforce every single function of the health department in a war-time emergency, are your civil defense health services really complete?

Stupendous Task Ahead

In this short period I can only hope to indicate to you the stupendous task ahead and the urgent need for wholehearted co-operation by every one of you.

As long as the burden must be carried alone by a small group of far-seeing members of your State or local profession, the task will continue to be discouraging, frustrating, and disheartening. When they are joined by all of you, their task will be a thousand-fold easier because then, and only then, will ultimate success be assured.

But you have not really joined your efforts to theirs until you recognize that to do so will require painful sacrifices of your time, and great amounts of hard work, and frequent drills and practices. There is no easy way, no short-cut. There never has been an easy, short way to national security, from the time our earliest settlers first set foot on this land and battled disease, cold, wilderness, floods, savage men, and savage beasts in order to build this great nation.

It is up to you to decide, individually, whether you are willing to sacrifice and work, to save the monument which they built, to preserve the way of life they started in America, it is up to you to decide whether you will accept the challenge of atomic age destructiveness and, at no matter what personal cost, but in the tradition of the physician, struggle ceaselessly to hold your great gain and, at the same time, assure steady progress toward an even better world of the future.

REFERENCES

1. Statement made by General Hoyt S. Vandenberg, Chief of Staff of the United States Air Force, and published in "Saturday Evening Post," February 17, 1951.
2. Statement made by General Nathan Twining, Acting Chief of Staff of the United States Air Force, at meeting called jointly on June 16, 1952, by Sec. Air Force and FCDA.
3. These supplies (excluding morphine and antibiotics) are listed in paragraph 7.71, page 110-111, of AG 11-1.
4. Dr. Theodor Rosebury, "Peace or Pestilence," New York, McGraw Hill Book Co., 1949.
5. From a Statement by Bureau of Animal Industry entitled, "Defense Against Foot and Mouth Diseases," dated February 1952.

Surgery of the Hand

RICHARD J. RUST, M. D.

Newport

I suppose that all of us possess some of the fervor of the crusaders when we find ourselves in a position to speak on a subject about which we have the strongest feelings and the firmest convictions; we become preachers of a gospel in which we believe, and we feel that everyone who has the opportunity to hear "the word" must be converted and carry on as a missionary to convert other souls. Unfortunately, as happens with too many sermons, the words are spoken, are heard by the group, and like the man in the gospel who sowed his seeds upon the rocks, are quickly forgotten and do not bear fruit. I hope

such a fate is not in store for my sermon today on the "Salvation of the Hand."

Evolution of the Hand

When man in his evolutionary development learned that he could move as readily on his two hind legs as he could on all four, he found that by doing so he could put his two front extremities to other uses, and thereby have decided advantages over other animals who required their use in locomotion. This progressive step, together with the concomitant development of his brain, allowed man to make these forward extremities to grasp weapons, and to perform dexterous movements, which enabled him to cope more satisfac-

torily with an unfriendly environment, and, gradually to develop their sensory acuity to enable him to become more familiar with his environment by highly developed tactile discriminatory sense. This development of the hand has progressed through the centuries to such proportions that we find the hand so intimately involved in our lives and thoughts that it has become a veritable part of our language; as, for example such words as, handy, handle, second hand, rule with a strong hand, etc.

Hazards Encountered in Modern Industry

Today, more than at any previous time in the history of man, the hand has through the technological and scientific development of civilization been required to perform more and more precise, fine, and intricate movements with the result that it stands today, in the skilled individual, as the epitome of fine balance, precision movement, and delicate sensitivity. Unfortunately, with the technological development of larger, more powerful industrial equipment made to operate at astounding speeds and with crushing power, and with the carelessness which results from the skilled workmen operating these industrial behemoths in a repetitious and boring manner, a larger and larger toll of hands are falling the victim of the American industrial phenomenon known as mass production. Since more and more of our skilled occupations are requiring greater and greater manual dexterity, the loss of even the smallest portion of the delicate balance of movements or sensitivity of the hand produces a greater or lesser economic loss both to the individual and to the industry. It is our duty as physicians and surgeons to reduce this economic loss to a minimum and, I am sorry to say, I feel that on the whole we have failed in our duty. It is my frank opinion that if it were possible to assemble statistics to determine the amount of functional loss resulting from the original injury and amount due to inadequate (and often ignorant) medical management of hand injuries, I'm afraid that the medical profession as a whole would blush, and institute an extended program of postgraduate education on hand injuries.

Value of Studying Functional Anatomy of the Hand

Due to the necessity for brevity in this paper, and because of the immensity of de-

tail involved in a consideration of the problem of hand surgery, it is not our purpose today to begin this much needed postgraduate course, but rather to limit our discussion to the highlights of the management of the injured hand; to learn first some of the important anatomical and physiological features of the hand; second to familiarize ourselves with the basic methods of examination so that no detail of functional loss may escape undetected in our initial evaluation of the injury; and thirdly to discuss some of the procedures for the primary care of the hand injuries which have as their purpose the preservation of hand structures until such time as definitive or reconstructive procedures may be instituted. No one should profess to treat even the simplest of hand injuries without being familiar with at least a general idea of its functional anatomy. And all too frequently this is just what does occur. Our college curriculum is pressed for time, and in most of the anatomy courses, dissection and discussion of the hand usually occurs at the time when term examinations are approaching, and, as a result, the hand is more or less passed over with the idea of studying it in more detail at a later date; and this date is extended more and more until it is ultimately forgotten.

It is to be hoped that today's discussion may stimulate many of you to wipe off the dust of your anatomy books, and to keep that date with the hand which you have been promising yourselves ever since you were freshman in medical school.

Anatomy of the Hand

Let us begin our anatomical discussion by a mental dissection of the hand. We will proceed to make an incision transversely across the volar aspect of the wrist and across the base of the fingers, and extending along the thumb and little finger dissecting the skin and subcutaneous tissue free of the underlying palmar fascia. This is a flat band of dense fascia which sends septa and fibers to both the skin and to the sides of the metacarpal bones. This fascia continues distally as a slip down the volar surface of each finger to a distance of about two-thirds of the proximal phalanx.

Proximally this band is connected with the palmaris longus tendon. Now let us divide the insertion of the palmaris tendon and the palmar fascia, let us free the palmar fascia from its slips down to the metacarpal bones and turn it distal-

ward. By doing this we expose the deep palmar structures. These deep palmar structures may be divided into three major spaces; the thenar space, closest to the thumb, the middle palmar space and the hypo-thenar space, close to the little finger. The thenar space contains mostly the short muscles of the thumb. In it we will find the abductor pollicis brevis muscle, the flexor pollicis brevis, the adductor pollicis, the apponins pollicis and the tendons of the flexor pollicis longus. We will also find the superficial branch of the radial artery which joins with the branches from the ulnar artery forming the superficial volar arch and deep branch which lies beneath these muscles to join with the branch from the ulnar artery to form the deep arch of the palm of the hand. The middle palmar space consists principally of this superficial volar arch, which we have previously described, and the median nerve and its digital branches that is in the superficial layer. Now the middle layer contains the tendons, the long flexor muscles, the flexor digitorum profundus and sublimis, their gliding structures and the lumbrical muscles. These latter arising from the deep flexor tendons. The deep part of the space contains the deep volar arch, which we have described previously as arising from the deep branch of the ulnar artery and the deep ramus of the radial artery. This space also contains the deep branch of the ulnar nerve. The hypo-thenar space contains the three short muscles of the fifth finger, the abductor digiti quinti, the flexor digiti quinti, and the opponens digiti quinti. It also contains the superficial ramus of the ulnar artery and the superficial ramus of the ulnar nerve.

The flexor tendons of the five fingers enter the deep volar spaces after having passed through the carpal canal. The tendons of the deep flexors lie one by one in normal sequence; the superficial tendons, however, superimpose two by two. The superficial tendons are crossed by the median nerve. These structures are confined to the carpal canal by the transverse carpal ligament and the volar carpal ligament. These flexor tendons proceed across the palm of the hand to the tense annular sheath arising from the transverse carpal ligament just proximal to the metacarpal heads. In the proximal part of each digital sheath the two flexor tendons are superimposed. At the level of the proximal phalanx the sublimis divides into two slips which are inserted into the sides of

the middle phalanx while the profundus passes between them through the aponeurotic canal to the base of the distal phalanx where it is inserted.

The lumbricale's muscles are situated between the flexor profundus tendons from which they arise, pass to the dorsal aspect of the finger and insert into the tendinous expansion of the extensor digitorum communis. They serve to flex the proximal phalanges and to extend the middle and distal phalanges of the second to the fifth fingers.

The deepest layer of muscles are the interossei, originating from the lateral surfaces of the metacarpal bones and inserting, like the lumbrical muscles into the tendinous expansion of the extensor communis. They aid the lumbrical muscles in their function and adduct the proximal phalanges of the second, fourth, and fifth fingers toward the middle finger.

Anatomy of the Dorsal Aspect

Having rather hurriedly perused the general anatomical features of the palmar aspect of the hand, let us proceed with its dorsal aspect. On dissecting the skin and subcutaneous tissue from the dorsum of the hand, we encounter first a tough connective tissue, the deep dorsal fascia, upon which are lying the subcutaneous veins and the cutaneous branches of the radial and ulnar nerves. It is connected proximally with the deep fascia of the forearm and distally with the dorsal aponeurosis of the fingers. At the wrist this fascia becomes thickened, forming the posterior annular ligament. Septal partitions connect the ligament with the dorsal aspect of the radius and ulna, forming six tunnels through which pass the extensor tendons and their sheaths. After the extensor tendons have passed through these tunnels, they divide into two groups, one of which, the ulnar, goes to the middle part of the hand to the second, third, fourth and fifth fingers, two tendons to the second and fifth, and one each to the third and fourth, while the other goes to the radial side of the mid hand and thumb. Beneath these tendons lie the dorsal interossei arising from the metacarpal bones and have as their function the abduction of the second, third, and fifth fingers from the third finger in opposition to the adducto action of the volar group. They likewise aid the lumbricales muscles in flexing the metacarpo-phalangeal joints and in extending the fingers in the inter-

phalangeal joints. At the middle phalangeal joints the extensor tendons are joined together by fibrous bands (juncturae tendinae), then crossing the joint, they form an aponeurosis over the dorsum of the proximal phalanx, and proceeding forward to the proximal interphalangeal joint, divide into three slips, the central one of which fuses with the joint capsule and inserts into the base of the middle phalanx, while the lateral slips join with the interossei and lumbricales to fuse with the joint capsule of the distal interphalangeal joint and insert into the base of the distal phalanx.

Keeping in mind the discussion which we have just completed, let us begin to make some practical use of the anatomical facts which we have just reviewed, and apply them to the examination of the injured hand. Undoubtedly the primary examination of the recently injured hand will determine the ultimate prognosis; it will determine whether this hand will receive the benefits of the advancements which have been made in the science of surgery of the hand or whether it will fall the victim of hasty inadequate first aid measures and careless suturing of the lacerations of the skin without observing or particularly caring what lies beneath the surface, thus remaining a more or less useless member flailed about by an irate owner to haunt the medical profession with the thousands of others that have gone before it.

Routine Method of Examination and Treatment

In order for the hand examination to be thorough, it is felt that a routine method of examination must be followed so that not even the most minute loss of function may escape detection. Naturally this method may vary in sequence from surgeon to surgeon, but whatever sequence is followed should be done so routinely that it becomes practically second nature to the examiner in the evaluation of any hand injury. For the purpose of our discussion today, let us follow a routine of examination which I have found to be quite useful.

Let us assume that a freshly injured hand has just been brought into the accident ward of the hospital. An improvised tourniquet has probably been applied previously by a well intentioned but ill-advised fellow employee, and an easily available handkerchief, clean or not, has

been wrapped about the congested, blue, bleeding hand. The patient is immediately placed on the emergency room table, the arm and hand placed on an armboard, and a good light is secured. The pain in this hand is probably the source of great concern to the injured person, and, in order to secure adequate cooperation, the patient should be sedated. The tourniquet is removed and the major bleeding points are clamped and tied. Note that I said "bleeding points" and not "mass ligation" of tissue just because there is bleeding somewhere in the vicinity. Blind clamping may supplement quite thoroughly the original injury in producing maximum degree of uselessness. When the bleeding has been controlled and the pain has abated, somewhat, we are then ready to proceed with the examination. Let us, first of all, just look at the hand, noting the general location of the injury and the apparent degree of damage. Observe the amount of skin loss and the viability of the remaining skin, and make a note of the necessity of immediate skin replacement necessary to protect underlying structures. After the amount of skin and soft tissue damage has been noted, let us check the circulation in the hand as a whole as well as in its component parts; note the radial and ulnar pulses, and then test the circulation in each of the fingers. When these fingers are badly damaged, it may be difficult to be certain of the adequacy of the circulation, and careful, and often repeated, observations may be necessary in order to decide. A little test which is frequently not thought of in observing the adequacy of circulation is by taking a sharp scalpel and making a small cut in the tip of the finger and observing whether bleeding occurs freely, and whether the blood is a bright red arterial blood or deep blue or black venous blood. If good bleeding occurs in the fingers, the likelihood of a major degree of vascular damage to the hand is unlikely.

After the circulation in the hand has been evaluated, let us then proceed to observe the function of the intrinsic and extrinsic muscles and tendons of the hand. From our discussion of the anatomical relationships of these structures, we can readily determine whether any disturbance of their continuity has occurred. You will remember that the flexor digitorum profundus tendons insert into the base of the distal phalanx. By asking the pa-

tient to flex the tips of his fingers we can very rapidly determine the presence or absence of the profundus tendon function. By having him flex the proximal interphalangeal joint, we can determine whether or not the sublimis tendons have been severed since it will be recalled that these tendons insert into the base of the middle phalanx. If he can flex the metacarpophalangeal joint and can spread and approximate the fingers, the interossei are intact. The adduction of the thumb can readily be tested, and the action of the adductor of the thumb and the flexor pollicis longus may be determined by approximating the tip of the thumb to the tips of each of the fingers of the hand in sequence. After the volar muscles and tendons have been tested, we may determine extensor function by having the patient extend each joint of each finger. If the distal phalanges extend, the lateral slips of the extensor expansion and the interossei-lumbricales groups are intact; extension of the middle phalanx confirms the continuity of the middle slip of that expansion; extension of the proximal phalanx indicates that the extensor trunks are intact. If the distal phalanx of the thumb extends, the extensor pollicis longus is intact, and if its proximal phalanx extends normally, the pollicis brevis is not damaged.

Value of Determining Nerve Damage

In determining the degree of nerve damage sustained, the following considerations will serve as an excellent guide. The interosseous muscles are exclusively controlled by the ulnar nerve and therefore can serve as a test of ulnar function. If the ulnar nerve has sustained a loss of continuity, the patient will have difficulty in holding a piece of paper between adjacent fingers held in the extended position. The median nerve enervates the lateral two lumbrical muscles and the muscles of the thenar eminence whose opponens muscle is THE muscle in approximating the thumb tip successfully to the finger tips, and so the thumb to finger tip test serves as a very useful guide in determining median nerve involvement. Sensory tests may be made if one bears in mind that the radial nerve supplies the dorsum of the hand from the thumb to the medial half of the fourth metacarpal, the ulnar nerve supplying the remainder of the dorsum of the hand and the volar area to the middle of the fourth finger.

The median nerve supplies the remainder of the volar surface of the hand.

Roentgenography Essential

Of course no examination of the hand is complete without roentgenographic examination to determine the presence or absence of fractures. After these have been completed we are in the position to adequately evaluate the degree of injury, and to plan the treatment to be instituted. This latter must of necessity be dependent upon several factors:

Evaluate Nature of Injury

1. The nature of the injury must be considered before treatment is begun. A hand that has been badly mangled, grossly contaminated with the skin devitalized or a large portion of it missing, with questionable blood supply and multiple compound fractures could hardly be considered as suitable to plan to do extensive primary tendon or nerve repairs. On the other hand, a simple clean cut, severing one of the extensor tendons of the dorsum of the hand with no other damage could certainly be considered for primary repair.

2. The nature of the physical facilities available to the surgeon at the place of injury. Hand surgery demands the most adequate facilities in order to accomplish the maximum result, and it is foolhardy to attempt to do extensive hand reconstruction with inadequate surgical equipment or inadequately trained assistance.

3. An honest evaluation by the doctor of his ability or inability to do adequately the amount of reconstructive surgery which his examination has shown to be necessary. There is nothing mysterious or inordinately difficult in hand surgery provided that the surgeon planning to repair an extensively damaged hand had equipped himself with a sound knowledge of the anatomy involved, the principles of plastic surgery, orthopedic surgery and neuro-surgery necessary, and is thoroughly grounded in the principles of atraumatic and aseptic surgery. If all of these requirements are met, let him proceed with his ministrations; if not, let him repeat his sedative if needed for a trip, give tetanus or combined tetanus and gas antitoxin, a good dose of one of the "miracle drugs," check his bleeding, apply a sterile dressing and send him on his way to more adequate facilities.

Operative Procedures

With the patient in an adequately equipped hospital with a surgeon familiar with hand surgery, we are ready to proceed with the repair of this badly injured hand. Under general anesthesia, the hand is thoroughly scrubbed with green soap and water and irrigated with large amounts of saline solution until all trace of grease and grime has been removed. Ether and alcohol preparations of the skin (not the deep tissue) may be of benefit in the oil or grease covered hand. After preliminary cleaning and irrigations have been done, the surgical scrubbing of the hand with one of the hexachlorophene preparations such as phisohex or gamophen, for three to four minutes and drying with sterile sponges will serve as a good skin preparation without the use of harsh antiseptics. Surgical draping is then done, a tourniquet applied, and the excision debridement of the wound is then done. This consists of carefully, systematically excising the complete surface of the wound to a depth of one or two mm. or more if necessary, beginning at the skin margin and circling deeper into the wound, sparing only exposed tendons, nerves, articular surfaces and other essential structures. After this has been accomplished the wound is again thoroughly irrigated, redraped, the surgeon and his assistants are given new gowns and gloves, and the operation proceeds.

The planning as to what is to be repaired primarily and what should be done secondarily in a wound which is relatively clean will depend on the location of the damage and the amount of tissue lost. Naturally if any of the fingers require amputation due to loss of their blood supply, this should be done, keeping in mind in doing the amputation to salvage as much finger as is consistent with the ultimate best function to the hand as a whole as well as the surgical necessity at the present. The judicious use of small split grafts taken from the forearm primarily or flap grafts turned up from the base of the hand and sutured to the tips of fingers may make possible an amputation much less radical than at first seemed necessary and may salvage to a large degree the function of that finger.

Special Attention to the Thumb and Fractures

The thumb especially must be treated with all the conservation possible, and ex-

tensive and time consuming reconstruction must be accepted rather than to lose even a small portion of the thumb. After the necessary amputations have been done, the surgeon then turns to the reconstruction of the remaining hand. Fractures are first treated, as they form the deepest area of the hand. When reduction has been accomplished and if the fracture is not completely stable, some type of internal fixation should be used.

This may be in the form of the wiring of fractures with stainless steel wire or, if the wound is clean, the use of inter-medullary kirschner wires in the metacarpal bones may serve as an excellent method of fixation. Whatever method is used, the surgeon must bear in mind the way these fractures have to be immobilized in a cast and its effect on other injured structures of the hand.

Nerve and Tendon Repair

After whatever fractures that may have been present have been treated, the question of the primary or secondary repair of the tendons and nerves presents itself. The pendulum has swung back and forth from all primary repairs to no primary repairs and back again. At the present time, the pendulum seems to be somewhat in between these two extremes. Since it is impossible in a paper of this type to avoid injecting the personal element, I would like to express my personal opinion in this regard, although I most thoroughly respect the judgments of others who may disagree with me. I feel that if adequate good skin is present over the hand primary repair should always be done in the extensor group of tendons, and usually in the flexor tendons which have been severed in the palm of the hand proximal to the flexor tunnels of the fingers. When flexor tendons have been severed in the fingers, one must be much more wary of doing primary tendon repair, especially if there has been soft tissue damage other than minimal. The reason for this distinction is in the flexor tunnels themselves. If failure occurs in flexor tendon repairs in the finger, it usually takes the form of adhesions between the tendon and the flexor tunnel, and adhesions of this type will ruin the gliding surface of the tunnel making a successful secondary repair or tendon grafting very difficult or almost impossible. It is my feeling that it is much better to defer repairs of tendons severed

in the fingers until after the trauma has subsided, and then doing a tendon graft from the palm of the hand to the base of the distal phalanx, leaving nothing but smooth gliding surfaces apposing each other in the flexor tunnels. In doing primary repairs of tendons, if both the sublimis and the profundus tendons have been severed in the same plane, the sublimis tendon should usually be sacrificed because adhesions between the severed ends frequently occurs and only sublimis action is obtained, and since profundus action is much more important in general hand function, this result is undesirable.

Repair of Superficial Tissue and Skin

After the deeper structures have been repaired as far as surgical judgment deemed it advisable, repair of the superficial tissue and skin become the next consideration. If there is extensive skin loss, replacement is more or less of an absolute necessity if hand function is to be spared. This may be in the nature of a skin dressing consisting of a split thick-

ness graft sutured into position to protect the underlying structures until later replacement may be made by tube or flap grafts, or primary flap grafts may be made from the abdominal wall or back in the form of glove grafts, for the dorsum of the hand or other similar types for fingers, etc. Details of these types of grafts cannot be given because of lack of time, but can be found in any other good text of hand reconstruction. The important principle to remember is not to allow any delicate structure of the hand to be exposed to the air or be covered with vaseline or other ointment dressings. Loss of the hand function is the price to be paid for violation of this commandment. After the hand has been recovered with skin, the hand is dressed and appropriate immobilization is applied, and the primary work in reconstruction is complete.

It is to be hoped that this discussion will serve one purpose, to make each of us here more hand conscious, and thereby make some progress in diminishing the terrific toll which modern civilization is claiming along the road of progress.

The Diagnosis of Lung Lesions

PAUL D. CRIMM, M. D.

Evansville, Indiana

The diagnosis of lung lesions, like pathological conditions elsewhere, depends upon the history, the physical examination, and the laboratory data. The relative diagnostic value of these three methods sometimes varies with different diseases. The history in peptic ulcer, the physical examination in mitral stenosis, and the X-ray in pulmonary tuberculosis may furnish the only clue to an early diagnosis. These three methods play a very important role in the final diagnosis of all pulmonary pathology but in general practice one tends to rely on the method which is most expedient in evaluating the symptoms presented by the patient.

An accurate history, not always obtained during the first interview, offers you the opportunity to direct the patient either to return home or to secure an X-ray or some other laboratory procedure. At times both the laboratory data and the X-ray report are negative, yet the patient's

respiratory symptoms may continue. Although the practitioner receives negative reports from the laboratory, he is obligated to treat the patient until further laboratory work is performed to find the cause of the patient's distress. Too often X-rays, and they may be negative, do not reveal, for example, respiratory conditions such as bronchiogenic carcinoma, bronchitis, and bronchiectasis. It is, therefore, mandatory that further procedures like bronchoscopy and lipiodol studies be made on those patients with continued pain, cough and sputum production. Even repetition of the bronchoscopy, smears, and cultures may be necessary to establish a diagnosis. If this fails, modern methods of anesthesia and chest surgery have made exploration of the thoracic cavity a safe procedure.

In your practice you see a host of acute respiratory conditions which respond to "therapy on the hoof" but a certain percentage of these patients possess lesions which are in the act of producing pro-

dromal symptoms of more serious pathology. And, this discussion attempts to review the pertinent symptomatology of the more common lung conditions which daily challenge your diagnostic skill.

Atypical Pneumonia

Atypical pneumonia is often called "virus pneumonia" but this is a misnomer since no one has found the causative agent of non-bacterial atypical pneumonia. Some think it is caused by a filterable virus. A more accurate nomenclature for atypical pneumonia is obstructive bronchitis, bronchiolitis, and alveolitis, since the bronchi and bronchioles are inflamed and filled with pus and debris. For this reason bronchial lavage makes any drug therapy all the more efficacious and at times unnecessary.

Clinically, pulmonary diseases caused by infections and pulmonary diseases not caused by infection often have similar symptoms. These latter conditions are not nearly as common numerically as atypical pneumonia, so-called, which is a most important disease because of its frequency. The non-infectious conditions to be excluded in the differential diagnosis are pulmonary edema, with or without heart failure, atelectasis, pulmonary infarction, sarcoidosis, and neoplasm. The infectious diseases to be excluded are psittacosis, Q fever, bacterial pneumonia including tuberculosis, influenza, and the mycoses.

In the symptomatology of atypical pneumonia, the patient may be ill 5 to 10 days before he visits a physician. Cough, usually non-productive in the beginning, is the chief complaint. Sore throat, a fever of 101-103°, and chills are next in frequency. The leucocyte count is normal or slightly above normal. The X-ray evidence of infiltration is greater than the minimal physical findings indicate. The absence of an initial chill and bloody sputum, and the abrupt onset differentiates it from a pneumococcus pneumonia while the patient with influenzal pneumonia is quite ill with remittent fever, dyspnoea, cyanosis and bloody sputum.

Lobar Pneumonia

Pain is the most common symptom of lobar pneumonia. It may be the first symptom noticed and even precede the chill or it may occur on the third or fourth day of the disease. It occurs generally on the affected side, rarely on the

unaffected side. Cough is often present prior to the onset of the infection and is a common symptom which may lessen in severity when expectoration appears. Rusty sputum, tenacious and viscid, is present. If hemorrhage is frank, a tuberculous pneumonia should be suspected. In children lobar pneumonia may be ushered in with vomiting. Nervous complications are prominent and the child may become so delirious that it is unable to recognize anyone.

Atelectasis, caused by obstructive bronchiolitis and occasionally bronchitis, should not be mistaken for pneumonia. Its onset may be accompanied by dyspnoea and a sudden pain in the chest, the heart rate increases, and the heart is pulled to the affected side. The temperature is not as high as in pneumonia and may continue until the obstruction in the bronchus is relieved. Atelectasis should be suspected if the patient has had surgery recently, especially in the upper abdomen and if there is evidence of diminished volume of involved lung, retraction of ribs, and/or mediastinal shift. The obstruction in the bronchus, if removable, can be evacuated by the use of bronchial lavage, suction or forceps.

Bronchial Pneumonia

Intense dyspnoea may be the most striking symptom of bronchial pneumonia. The difficulty in breathing may be in proportion to the extent of pulmonary involvement. Pain is not a marked symptom in bronchial pneumonia and may be absent. Cough is distressing especially in cases not too toxic. Cough is feeble in toxic cases.

Pulmonary Infarction

A severe pain in the chest should make one think of a pulmonary infarct especially in those patients who have chronic valvular heart disease. Chest pain, bloody sputum, and shortness of breath urges the consideration of pulmonic infarction and the search in the peripheral veins for responsible phlebothrombosis. Prevention of future episodes demands vein ligation, or in unusual situations, continuous use of anti-coagulants.

Influenza

In this disease pain is felt generally over the entire body and may be severe in the legs, eyeballs, and across the small of the back. Coryza, sore throat, dys-

pnoea, bloody sputum, are present and gastro-intestinal disturbances are not infrequent. Vomiting, jaundice, and insomnia may occur even in the respiratory type of case. The pulse may be slow compared to the high temperature. Cyanosis may be marked because of the toxemia due to the heart failure. A normal leucocyte count or leukopenia is often present early in the disease, whereas a leucocytosis is present upon improvement.

Pulmonary Mycoses

The symptoms of pulmonary mycosis resemble the symptoms of tuberculosis as both conditions cause cough, sputum production, mucopurulent in character, fever, increased pulse rate, hemoptysis, chest pain, and loss of weight. In the pneumonic type of mycosis, the eosinophil count is elevated along with the leucocyte count and generally it is higher than in tuberculosis.

In moniliasis the bronchi are infected most commonly but the pulmonary type is the more serious disease. A moderate elevation of pulse and temperature occurs. The cough is disturbing, sputum is mucoid and sometimes blood streaked. Serial X-rays may reveal clearing in certain areas and increased infiltration in other areas. It is often non-pathogenic and must be differentiated from blastomycosis, actinomycosis, and coccidioidomycosis. Blastomycosis may simulate a neoplasm or an atypical pneumonia. In coccidioidomycosis the symptoms are similar to those of any respiratory infection. Eosinophilia is a corroborative evidence of this infection. Serial chest film and complement fixation tests give valuable information. This mycosis is common in Southern California. The coccidioidin skin test and the tuberculin test may aid in differential diagnosis. Gastrics and cultures are indispensable.

Pulmonary Abscess

In pulmonary abscess, cough, expectoration, some bloody sputum, and chest pain are frequent since an early primary abscess has its origin near a pleural surface. A sudden output of pus or repetition of the same is characteristic of primary abscesses. Many putrid abscesses can be diagnosed by the odor of the pus. A bronchoscopic examination followed by lipiodol instillation aids in the diagnosis and often serves as adequate treatment.

Pulmonary Fibrosis and Emphysema

In the moderate stages of pulmonary fibrosis or chronic emphysema or both the general health is usually not impaired but the patient cannot exert himself with a sense of well being. He has been subjected to repeated pulmonary infections. He has a long-standing cough, daily expectoration, occasionally blood-streaked. Dyspnoea or an acute attack of pleurisy or blood spitting, increased coughing, or cardiac failure may force him to seek medical attention. Bronchiectasis may be present if the bronchi are dilated because of the interstitial fibrosis. A prolonged cough will cause an over-distension of the alveoli and force the pulmonary elastic tissue to over-expand. The elastic tissue loses its resiliency and emphysema results. The inhalation of dust or the playing of wind instruments likewise enhance this condition.

Bronchitis and Bronchiectasis

Certain functional and structural changes affect the lungs especially in elderly patients and cause bronchitis and bronchiectasis. The interstitial connective tissue increases, the parenchyma loses its elasticity and ciliary and bronchial motor functions become impaired. This impairment favors the retention of bronchial secretions and predisposes the patient to bronchitis and subsequent dilation of the bronchi. Chronic bronchitis may be a separate entity in many people up to the age of 50 or 60, but in later years it may be secondary to cardiac insufficiency, bronchial asthma, tuberculosis, carcinoma, and bronchiectasis. At times chest symptoms can mask other pathological problems. Just recently I saw a male, age 56, who had received a diagnosis of bronchitis and silicosis. He was applying for disability compensation. He had driven a coal truck on top of the ground for 30 years. The dust from the road, not coal dust, had forced him to wear a mask for the last 6 months. He found it difficult to breathe and bronchitis had persisted. Later investigation revealed that his bronchitis was symptomatic, not of silicosis, but of lymphatic leukemia.

Bronchiectasis is often the result of repeated attacks of bronchitis and pneumonitis, localized areas of cellulitis in the walls and adjacent tissues of the bronchi. It is confused with pneumonia. This condition should be watched for after operations on the upper respiratory tract. Ad-

vance cases of bronchiectasis with clubbing of the fingers and large quantities of sputum can be prevented in many cases with immediate follow-up of all pulmonary infections which do not clear properly. If bronchoscopy is used and used periodically until the bronchial cellulitis is under control, these conditions can be prevented or improved. Many cases of bronchitis respond to bronchoscopy and repeated bronchial lavages of normal saline or 5% sulfa solution. Antibiotics are more effective if given hypodermically than if instilled in the bronchial tree.

Pulmonary Tuberculosis and Neoplasm

The onset of cancer is even more insidious than tuberculosis. The history of the case in question is a most important factor in both diseases. An accurate history is difficult to obtain from the patient with early cancer. The patient must be questioned again and again regarding the type of cough, pain, hemoptysis, weight loss, fatigue, dyspnoea, and hypernoea. Repeated attacks of the more common respiratory ailments should arouse suspicion and investigation.

Every physician has in his practice a group of patients who are known as chronic coughers. The patient and physician may be caught off-guard if they do not realize that any slight variation of the chronic cough may be significant. The advent of an out-of-the-ordinary cough, like spasmodic cough, hacking cough, nocturnal cough, respiratory wheeze, or a cough that becomes productive demands investigation immediately in order to rule out tumor, if the patient is over 40, or tuberculosis, if the patient is less than 40 years of age (exceptions to the contrary notwithstanding).

In both early cancer and early tuberculosis the patient should be questioned about minor weight loss. As tuberculosis progresses, weight loss increases markedly, due to fever and loss of appetite. Hemoptysis generally brings the patient, ill with tuberculosis, to the doctor early in his disease in time for rapid recovery, but hemoptysis from cancer often times finds a cancer of the lung which already has metastasized.

Particular attention should be given to symptoms of discomfort in the chest. Pleuritis pain is apt to be an early symptom of tuberculosis, but the invasion of a neoplasm gives the patient a sensation of a dull ache. At times the patient can point

to the location of the tumor. This persistent ache in the absence of inflammatory disease should lead one to suspect a neoplasm. When pain becomes extremely severe, the question of operation becomes a serious problem, because the tumor may have infiltrated into contiguous tissue. It may mean that the intercostal nerves, brachial plexus, the recurrent laryngeal nerve, or the phrenic nerve has been invaded by carcinoma. Arthralgia is not an uncommon symptom of neoplasm of the lung and the disappearance of this symptom following extirpation of the tumor is most welcomed by the patient.

One can check a tumor involvement of the phrenic nerve by observing the movements of the diaphragm. The left vocal cord will be paralyzed if the recurrent laryngeal is involved where it passes under the arch of the aorta. Pain down the arm probably means that the tumor is growing in the superior sulcus and has contacted the brachial plexus. This is known as Pancoast's tumor. The tumor is no different than any other tumor in this location, but Pancoast was the first to describe the syndrome rather than the tumor itself.

Dyspnoea is not a very significant symptom in minimal tuberculosis and early cancer, but is pronounced in far advanced bronchiogenic, lymphangitic and metastatic carcinoma. Hypernoea is present in about one-fifth of patients with bronchiogenic carcinoma. This is due to a blockade of a segment of lung in the tertiary bronchi with a plug of mucus. The patient has a sudden desire to breathe deeper. It is paroxysmal. Blockade of the bronchi may cause pneumonitis, and any atelectasis which does not remain clear with bronchial lavage, lipiodol instillation and antibiotics should be viewed with suspicion. In pulmonary abscess, especially in patients over 40, a biopsy should be made at the time the abscess is drained. If the contents of the cavity are evacuated by bronchoscopy, a smear should be made for tumor cells.

Comment

If you suspect a pulmonary lesion, an early diagnosis means early recovery in the majority of lung conditions. Do not wait until hemoptysis stops or the fever subsides to obtain an X-ray of the chest. Few patients will be any worse off and most of the time better off for braving

the brief ambulation required to visit an X-ray laboratory. A definite diagnosis will guide you to administer the proper drugs, to select a wise surgical procedure, and to prevent a prolonged illness.

Summary

(1) The symptomatology of the most common lung lesions is reviewed.

(2) Both atypical pneumonia and virus pneumonia, at the present time, could be diagnosed more accurately as obstructive

bronchitis or bronchiolitis and alveolitis.

(3) Early diagnosis means early recovery in a majority of pulmonary conditions.

(4) In most cases if you wait for hemoptysis to cease or fever to subside before obtaining an X-ray, recovery is delayed.

(5) Bronchoscopy aids not only in diagnosis but is a valuable adjunct in treatment. Exploratory thoracotomy should be employed if other procedures fail to produce a diagnosis.

Infant Mortality

FRED POWER HELM, M. D.

Austin, Texas

Man's progress throughout the world closely parallels his ability to conquer disease. It has been stated that the best index for judging this progress is the infant mortality rate during the first year of life. In other words, the law of the inverse ratio holds true in that as the social level of the nation, state or community rises, the infant mortality rate is reduced.

Leading Causes

Let us review the ten leading causes of infant mortality in Texas for the year 1949.

Prematurity: 1st place with 1924 deaths.

Gastritis, enteritis, duodenitis and colitis (diarrhea and enteritis): 2nd place with 1183 deaths.

Pneumonia: 3rd place with 757 deaths.

Congenital malformations: 4th place with 712 deaths.

Postnatal asphyxia and atelectasis: 5th place with 611 deaths.

Birth injury: 6th place with 570 deaths.

Dysentery: 7th place with 371 deaths.

Infections of newborn: 8th place with 269 deaths.

Nutritional maladjustment: 9th place with 223 deaths.

All accidents: 10th place with 209 deaths.

For the past twenty years infant mortality in Texas has shown a gratifying overall reduction. From the years 1935

through 1949 the rate per 1,000 was reduced 40 per cent, yet it is sobering to realize that in 1947, 1948, and 1949, prematurity, diarrheal diseases and pneumonia accounted for 13,380 infant deaths. Prematurity since 1943 has ranked eighth in the ten leading causes of death in Texas for all ages. During the period 1932 to 1949, inclusive, there were 35,216 deaths due to this cause alone. For Kentucky in 1948, prematurity accounted for 30% of the deaths under one year of age. Further, it has been reported in the health department bulletin, April, 1951, that prematurity accounted for about forty-six per cent of the deaths within the first month of life in the state. The premature infant ordinarily contributes 5 per cent of all live births, but are responsible for 50 per cent of all neonatal deaths.

Prematurity

Prematurity has become one of the ten leading causes of mortality in the general population and the only pediatric condition among the first ten causes of death in this country. The fundamental philosophy of our efforts at safeguarding the life of the premature infant embraces the concept of joint pediatric and obstetrical responsibility.

The best way to lower mortality from prematurity is, of course, to prevent premature labor. The infant's survival depends chiefly upon three factors:

1. Type of mother, whether or not she is healthy.

2. Antenatal care and care at delivery.

3. Neonatal care in the nursery (or home).

On a national, state and local level, then, we should aim first at supplying a type of antenatal and delivery room care which will decrease the number of premature births and mitigate the risks of delivery. Also we should aim at supplying specialized nursery and follow-up care which will assure proper emotional and physical growth for the infants that survive. This will embody the teaching of nurses, public health officials, medical students and the physicians as well.

Prevention

The program called for and instituted by our state is broad in scope and includes:

First:

The preparation of a guide to aid hospitals in the general principles involved in construction and good premature care.

Second:

The establishment of premature units for care and teaching.

Third:

Postgraduate nurse training in premature care.

Fourth:

Postgraduate medical education for the general practitioner.

Fifth:

Means and methods of transportation for the premature infants delivered in the home to the hospital.

Sixth:

Portable incubator for home use where hospital services are not available.

Seventh:

Follow-up services and guidance for home care, and

Eighth:

Special studies in our medical centers related to the premature problems.

Hospital and Public Health Nurse

Cooperation between the hospital and the public health nursing agency in the community is paramount. Many prematures have been given good care in the hospital but when sent home to the inexperienced mothers, the prematures were lost. The after care, the economic conditions in the home and the public health nurse cannot be minimized.

Even though a report in the Journal of the American Medical Association, June 16, 1951, stated that the mortality from

the principal communicable diseases of childhood, measles, scarlet fever, whooping cough and diphtheria, fell more than ninety-five per cent, and that the downward trend of the death rate from diarrhea and enteritis was almost as rapid, yet we find it is the second leading cause of infant mortality under one year of age in both our states.

The extent of our second cause of infant deaths, diarrheal diseases, with its 1,554 deaths in Texas during 1949, is best expressed by its regular consistent inclusion in programs related to child care. In 1947, the combined diarrheal dysentery rate for Texas was 5.4 as compared to the national rate of 1.5, while in 1948 this combined rate rose to 9 as compared to Kentucky 5.1. It was because of this sudden increase that a map study of diarrheal deaths according to place and residence was prepared. Three striking deductions were made.

First:

If a line is passed from the angle of the reverse L of West Texas to the upper coastal line of Matagorda County, we find that the area below this line had 61,757 live births or 31 per cent of the live births of the state, while it accounted for 70 per cent of the total deaths due to diarrhea under one year of age.

Second:

In this same area, five counties accounted for 18 per cent of the births and contributed 50 per cent of the deaths due to these same causes.

And Third:

Still further, four counties with only 10 per cent of the births in the state have 29 per cent of the deaths due to diarrhea and enteritis under one year of age.

Value of Improved Health Facilities

It is well known that these diseases may be encountered at any time of the year. It is also well known that improvement in public health practices in the control of food, milk, water, sewage and other excreta disposal has had its effect in the reduction of the incidence of these diseases. In the area referred to, efforts were made by health department personnel in the overall picture related to diarrheal control. Weekly sanitary inspections were made and, through nursing service, continuous teaching was done both in well child conferences and the home in regard to food handling, formula

making and oil can technique, a type of home pasteurization. The method is simple, expense is minimal, and it is a time saver for the mother. The formula is safe even without refrigeration for a twenty-four hour period. Where it has been used, it has meant a decrease in incidence of infant diarrheal diseases.

In an effort to reach all levels, the services of personnel from various other agencies; such as Jeanes Supervisors, home demonstration agents, and home economic teachers in the school system were employed in this overall program. These efforts resulted in a marked reduction of death in the district.

As people become acquainted with the cause, the source of infection and the way to avoid diseases, they then are able to demand and place into effect standard control practices. During 1949, effort in the control of diarrheal diseases throughout the state bore its effect by reducing the state combined rate to 7.7 per 1,000 or a 25 per cent reduction over 1948.

In 1949, Texas' third major cause of infant deaths was pneumonia, the same as that reported for Kentucky in 1948, the latest national summary. It has been dramatically changed as the result of sulfonamides and antibiotics. The use of penicillin in primary pneumonia of children has brought a sharp drop in mortality rate. This rate in 1949 was 3.8 per 1,000, a 30 per cent reduction from 1948.

Accidental Deaths

Before concluding the review, of which I have discussed only the three major causes of death with you, these startling figures in regard to accidental death should be given:

First:

For 1949 in Texas one death out of 40 of all infant deaths is an accidental death.

Second:

That one out of 100 of all infant deaths is due to accidental mechanical suffocation.

Third:

That 40 per cent of all accidental deaths under one year of age are due to mechanical suffocation.

Now let us turn to Kentucky stating the last national statistical report issued June 1, 1950.

First:

For all infant deaths under one year of

age, one death out of thirty-eight deaths is an accidental death.

Second:

Of all the accidental deaths under one year of age, one out of every two is due to mechanical suffocation. Or one death out of seventy-five infant deaths under one year is due to mechanical suffocation.

This needless loss of lives certainly presents a challenge to every physician and local health department because only through educational services and infant care teaching, including home safety, can this be reduced. Parents and families should be warned about these common hazards to infants, some of which are:

1. The use of commercial and home made bottle props,
2. Wide slatted baby beds,
3. Restraining type sleeping garments and covers,
4. Plastic and other non-porous crib protectors,
5. Crib liners,
6. Heavy, loose woolen blankets in or on cribs,
7. Small feather pillows, toys, etc., in the crib.

Conclusions

It is with pleasure that I am able to report that Texas experienced its lowest infant mortality rate in the state's history in 1950.

The reduction was in the first three leading causes of death. Extended post-graduate education to physicians in newborn infant and postnatal care with the extension of clinical and nursing services throughout the state are bearing their effects in the lowering of infant mortality rates. During this period, diarrheal deaths have been reduced 42.6%, pneumonia 23%, dysentery by 50%, and prematurity unqualified by 5 per cent.

Infection of the newborn, influenza and congenital malformation rose slightly. Unfortunately, the accident rate was not lowered, but the large reduction from the three major causes gave us an overall infant mortality rate for this period of 37.3.

Our successes thus far in reducing the death rates for the three major causes of death should not give rise to complacency, but rather should stimulate a redoubling of effort in control measures directed at the unnecessary loss of infant lives.

SPECIAL ARTICLES

THE MELODY LINGERS ON

R. HAYNES BARR, M. D.

Owensboro

Many of us were deeply concerned when the Truman Commission on health needs was first named and charged to produce within a single year a comprehensive study of America's health problems and recommendations for their solution. Today—after publication of the first part of the Commission's five volume report—our initial fears seem fully justified.

The magnitude of any survey in so heterogeneous a nation as ours is staggering. When the object of study is so complex as health, the difficulties are multiplied manifold. This was acknowledged by Paul B. Magnuson, M.D., Commission chairman, when the medical profession raised the point last year.

Perhaps a sympathetic recognition of the impossibilities of the Commission's task underlies the restraint exercised in the statement on the Commission's report made by the A.M.A. Board of Trustees in the January 24 issue of the **Journal of the A.M.A.**

While the Board of Trustees statement points out that the report is illogical and contradictory in many places, it recognizes that the Commission "*has labored arduously, and any criticism of its final report must be made in the light of the tremendous scope of its assignment in the time limit on its activities.*" It cautions, however, that this does not justify withholding criticism, "*since the impact of such a report, unless subjected to careful analysis, may carry undue weight in future discussions.*"

The A.M.A. Trustees' statement correctly points out that the answer proposed for almost every problem is additional federal funds, and it invites attention to the implications of federal control. Regret is expressed that the first volume of the report, which contains the Commission's recommendations, should be published first and that release of the testimony that came before the Commission should have been delayed. Because of the

importance of this substantive material, the Board of Trustees is awaiting its publication before reaching final conclusions.

This deliberate and scientific-minded approach to the Commission's work by the A.M.A. is to be commended. It is regrettable and, to some extent, surprising that a similarly analytical approach was not made by the Commission itself.

It is impossible here to discuss fully even the first volume of the Truman Commission report. It is earnestly recommended, however, that every member of the medical profession acquaint himself with it and that he also read the A.M.A. statement as it appeared in the January 24 **Journal of the A.M.A.**

The Truman Commission members now intend to participate in a campaign to "sell" their recommendations to the American people. Because of this, you and I have an important responsibility to be fully informed so that we may properly help others understand and evaluate the report's recommendations — both good and bad, its background, and its implications. Without laboring the point, certain things which have a bearing on the report's validity are now clear.

One of these, as the A.M.A. has pointed out, is the tremendous difficulty which any group of men would encounter in efforts to understand clearly the character of health questions and their antecedents in a nation embracing such a wide diversity of environments and cultural patterns as our own. Even we in Kentucky, living our lives on the ground, find difficulties in developing acceptable formulae applicable to the entire state. Multiply this by 48 and the basic dangers inherent in the federal approach become clear.

That this handicap has been compounded by the extremely brief period allotted to the Commission for its study, is shown by the survey techniques used. Approximately eight months were devoted to

hearings by the Commission. These included many panels in Washington, D. C., and one-day sessions at regional hearings in Philadelphia, Raleigh, Minneapolis, St. Louis, Detroit, Cleveland, and San Francisco.

The preface to the Commission's report states, with regard to the Washington hearings: *"The final panel, at which 21 of the nation's outstanding authorities discussed the thorny question of the financing of medical care, extended over a two-day period, October 7 and 8. Between April and October, separate all-day panels were held on specialization, group practice, regionalization, promotion of health, prevention of disease, rehabilitation, medical education, health of the aging, mental health, care of the chronically ill, research, industrial health, supply and training of nurses, veterans and other Federal beneficiaries, rural health, military medicine, supply and training of paramedical personnel, health of mothers and children, environmental health services, financing of education and research, public medical programs, dentistry, and hospitals."*

The Truman Commission itself can hardly be blamed, but please note that for each of these complicated topics ONE all-day session was held.

The drawbacks in the eight one-day regional hearings were comparable. At one such session a state medical association requested that members of its council be invited, not to present prepared statements, but to answer questions the Commission might have about medical care in the specific geographic areas where the councilors were qualified to speak authoritatively. The request was denied. The Commission had no alternative since so many groups within the seven or eight state region had to be heard that time was not available. Each invited organization was given 10 minutes.

The impossible nature of its task should not be construed as meaning that the Truman Commission recommendations are therefore necessarily bad. Some are undoubtedly sound; others are highly questionable. The important point, however, is that these recommendations could not possibly have been produced by a scientific evaluation of all the factors presented to the Commission. Time simply would not permit it.

This means that, right or wrong, each

of the Commission recommendations is in a good measure the product of the individual viewpoints of its members. Viewpoints which were largely crystallized long before the Commission began its work.

Probably no single member of the Commission agrees fully with everything in the stated position of the Commission itself. What person was responsible for putting the viewpoint into the words which have reached print is unknown. But, since the printed report will be what the public sees, the individual deviations and reservations of Commission members are unimportant.

What then was the "preconceived viewpoint" of the Commission?

As expressed in the "Introduction," which forms a part of the report, and presumably sets a framework within which the whole report is constructed, the "preconceived viewpoint" is uncomfortably familiar.

To those of us who studied "The Nation's Health," written by Oscar R. Ewing as the opening salvo in his campaign for socialized medicine, both the ideas and their deft manner of presentation are strangely reminiscent.

The charitable frequently excuse fuzzy thinking on the grounds that it is unintentional. When it is couched in skillfully written language, however, the realist is alerted to the possibility of deliberate sophistry. He recognizes the need for carefully examining every statement so that truth, half-truth, and obvious error can be distinguished.

Whether the Truman Commission members are victims of or collaborators in the skilled double talk of their report's introduction is immaterial. What is important is that the whole Commission report becomes suspect by reason of the clever way in which seemingly innocuous statements are linked together in such a sequence that the basic fallacy of its conclusions is hard to discern.

Much of the Commission's "logic" is as tenuous as the classic: "All gold glitters; This glitters; Therefore this is gold."

The opening statement in the introduction to the Commission's report is a beautiful example. It says: "The maintenance of health must now be added to food, shelter, and clothing as one of the necessities of living."

Sounds meaningful, doesn't it? It does until one stops to analyze why food, shel-

ter, and clothing are necessities. What are they necessary to? They are necessary to life, to health, if you will. Viewed in this light, a seemingly profound statement is found to lack real meaning or substance.

The introduction then goes on for three lengthy paragraphs to build its case for the necessity of health. In paragraph four, however, the shift is made to "health services" and "medical services"—made in such a way that the undiscerning will assume that these terms and "health" are synonymous. The report then concludes that "democracy requires that the same high quality of service be made available to all men equally."

After having made this statement, without regard for the fact that higher priorities might properly be assigned to elements in the health picture other than medical services, the report doubles back to make a statement which is fundamentally sound and hits at the real heart of our health problems: "The individual effort of an informed person will do more for his health and that of his family than all of the things which can be done for him."

Having made this statement, and elaborated on it for two paragraphs, the Commission says: "Society must assure its citizens access to professional services, education concerning personal health practices, and a reasonably safe physical environment. As a matter of fact, for most of those who now lack comprehensive health services, the reason lies in large measure beyond individual control." This again is a preconceived viewpoint of the Commission. At the risk of appearing trite, it is obvious that in a nation which spends more for alcoholic beverages and tobacco than for health services, it is a preconceived viewpoint which is inconsistent with the facts.

The Truman Commission does not stop here. It says, and again without reference to reality: "Hence, the community—and particularly the most responsible commu-

nity organization, GOVERNMENT—must participate in the expansion of means to achieve health. . . . The local community (or region) should be the focus for THE ADMINISTRATION OF MOST OF THE DIRECT MEDICAL SERVICES PROVIDED TO THE INDIVIDUAL." (Emphasis ours.) In this case, the word "hence" covers a multitude of sins. Again, please note the shift from "health" to "medical services."

These are but some of the preconceived viewpoints expressed in the report. They are based on such faulty assumptions as the one that the heart of our society is government. They neglect the fundamental truth that the growth of our nation has been based on opportunities accorded other elements in society to function with a minimum of interference from government. They ignore the dynamic character of our present system, which, through a combination of individual liberty, free competition, and a set of checks and balances, is constantly providing all the people a greater opportunity for abundant life in all its phases.

When it was formed, the Commission was subtly charged to recommend additional government participation in the lives of individual American citizens. Perhaps, therefore, it is understandable that its recommendation of much wider federal participation in health services and medical service areas should result.

It would be inexcusable on our part, however, if we did not point out, merely as examples, the adroit way in which some truths, errors, and half-truths have been compounded in the Commission's prescription.

You are urged to familiarize yourself with the Commission's report. Remember, however, to read it as carefully and as analytically as you would diagnose a case. Only thus can its inaccuracies be separated from the legitimate comments it may make regarding America's health picture.

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

ASSOCIATE EDITOR: J. P. SANFORD

L. H. South, M. D.: Book Review Editor J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.	George G. Greene, M. D.	T. O. Meredith, M. D.
Rufus C. Alley, M. D.	R. Arnold Griswold, M. D.	William R. Miner, M. D.
Everett H. Baker, M. D.	William P. Hall, M. D.	Frank H. Moore, M. D.
Sam H. Black, M. D.	Emmet F. Horine, M. D.	James E. Moore, M. D.
James W. Bruce, M. D.	E. W. Jackson, M. D.	George W. Pedigo, Jr., M. D.
John L. Dixon, M. D.	William O. Johnson, M. D.	Alvin C. Poweleit, M. D.
Samuel H. Flowers, M. D.	James M. Keeton, M. D.	Winston U. Rutledge, M. D.
Carl H. Fortune, M. D.	Coleman J. McDevitt, M. D.	William L. Woolfolk, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville.....	President-Elect
Charles B. Johnson, Russell.....	Vice-President
W. O. Johnson, 605 Brown Building, Louisville.....	Vice-President
G. Y. Graves, Bowling Green.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1953
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1953
Third District Delmas M. Clardy, Hopkinsville.....	1953
Fourth District J. I. Greenwell, New Haven.....	1953
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. R. Cummings, Flemingsburg.....	1953
Tenth District J. Farra Van Meter, 183 N. Upper Street, Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1953
Twelfth District Carl Norfleet, Somerset.....	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman.....	1953
Fourteenth District Paul B. Hall, Paintsville.....	1953
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

A JOB WELL DONE

Effective with this issue of the Journal, Mr. R. F. Dixon will no longer be associate editor. He will be succeeded by Mr. J. P. Sanford. To Mr. Dixon is due the lion's share of credit for the many improvements that have taken place in the Journal. He has been the author of many fine editorials and has greatly influenced the changes that have occurred in the format and presentation of the Journal.

His work has been instrumental in inaugurating the steps that are now being

taken to further improve the scientific content of the Journal. Mr. Sanford has been more and more concerned with the publication of the Journal and will be able to continue the advances which have and are being made. We welcome Mr. Sanford in this new capacity and express our appreciation to Mr. Dixon for all he has done. The medical profession owes him a considerable debt of gratitude.

BRUCE UNDERWOOD, M. D.
Editor

THE A.M.A.'s WASHINGTON WATCHMEN

One of the most valuable contributions made by the American Medical Association to its members and the public—and one of which too few physicians are aware—is to be found in the services provided by the American Medical Association Washington Office under the direction of Frank E. Wilson, M. D.

The Washington Office, while not boasting a large staff, does a tremendous amount of work in its function as an information distributing center on federal legislation and other facets of government in their relationship to the medical profession.

In these days of big government and its inevitably widespread participation in all health matters, it is important that the medical profession have access to accurate information on all activities in Washington which are of special concern to it. With a minimum of fanfare, Dr. Wilson's office fills this need through the publication of the extremely informative "Washington Letter."

Pointed to the particular interest of physicians, the "Washington Letter" provides them with a concisely written statement of what is going on in the capitol. Because it is prepared by those whom the profession can trust, the letter provides a sound basis for action by both state and county medical society officers on controversial matters and keeps them abreast of the whole national scene.

It is recommended that all county

medical societies could profit from the regular reading of the "Washington Letter" at their meetings. Because of its terseness and factuality, everyone could profit from hearing it. Because limited funds prevent its distribution to all physicians, some such device for full use of the letter is desirable. K.S.M.A. county society secretaries who do not now receive the letter, may be placed on the mailing list by requesting it of the headquarters office.

While the "Washington Letter" is prepared for physicians by physicians, not even the worst enemies of medicine would dare accuse it of bias in the material it contains. Its reputation for accuracy of reporting is the hallmark, not only of the letter, but of every product of the Washington office.

This reputation for accuracy has earned the confidence of legislators as well as the medical profession. Congressmen frequently call upon Dr. Wilson's office for information pertinent to legislation under consideration. Both the people and doctors of medicine should be thankful that this is true.

Our hat is off to Dr. Wilson and his staff for the fine work they are doing. The influence they have on the future of medical matters in government is immense. May they always be with us, because accurate facts in the hands of both physicians and government officials can do much to insure the charting of proper courses of action in Washington.

President's Page

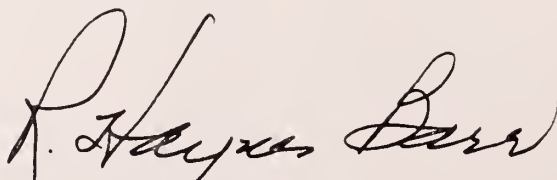
Every Kentucky State Medical Association member who attends the annual sessions or reads the JOURNAL has noted the large number of K.S.M.A. committees and the long list of doctors who comprise them. While the 52 committees and their more than 390 members is in itself impressive, the average member probably has but a vague idea of the magnitude of the work done for the profession by these men.

As each new president assumes office and has thrust upon him the responsibility for naming committees, he comes to a new realization of the value that each brings to K.S.M.A. As he watches their proceedings, he has a heightened appreciation of the professional and economic benefits derived from the voluntary work by committee members.

The committee work of your Association embraces every conceivable phase of medical practice which can be strengthened through cooperative organized effort. Whether it be done by the Committee on Scientific Assembly, the Advisory Committee on the U.M.W. Health and Welfare Fund, the Committee on Rural Health, or any of the other equally important committees, the value of their work on behalf of the physician is tremendous.

Every K.S.M.A. member has cause for gratitude to these men who are giving so freely of their time and talents—and spending their own money—to further the ever-expanding program of the Kentucky State Medical Association. Without their contribution, the variety of services received by all physicians would be impossible within the framework of our nominal dues structure.

It is customary for each retiring president to thank his officers and committee members. This is too frequently accepted as a mere formality. Because our debt to these men is so great, your president feels that the tribute should be paid them now, while they are still doing their jobs. They deserve full thanks from every physician for the professional and economic boons that their unstinted services give us all at a minimum expense to you and me.

A handwritten signature in dark ink, reading "R. Haynes Barr". The signature is written in a cursive, flowing style with a large initial "R".

PRESIDENT

ORGANIZATION SECTION

State Provides Four Methods for Committing Mentally Ill

Interest in methods of committing patients to the State Mental Hospitals has shown considerable growth, according to Frank M. Gaines, Jr., M.D., Louisville, Commissioner of Mental Health, following the publication recently of material on this subject.

Patients may be admitted to the State Mental Hospitals in one of four methods, Dr. Gaines says. They are:

1. Voluntarily. (A patient need only to sign a statement that he wishes to be treated in a mental hospital. No court procedure is necessary.)

2. Ten-day health officer's commitment. (A health officer may, on his signature alone, send a patient to a hospital for not more than ten days, after which the staff at the hospital decides whether or not the patient is sick enough to remain.)

3. Thirty-five day observation commitment. (Two physicians may certify that the patient, though not necessarily psychotic, needs observation in a state hospital. At the end of the 35 days the staff decides on the disposition of the patient.)

4. Regular court commitment. (The patient may be judged of unsound mind by a jury in a circuit or county court. The patient then loses his civil rights, which must be restored by court action after his discharge from the hospital.)

Dr. Bailey Accepts 2nd AMA Post

W. Clark Bailey, M.D., Harlan, Kentucky delegate to the American Medical Association, has been named to the Committee on Medical Care for Industrial Workers of the A.M.A. Council on Medical Service, it was announced by Elmer Hess, M.D., Erie, Pennsylvania, chairman of the Council.

This is the second current A.M.A. appointment for Dr. Bailey, past president of the Kentucky State Medical Association. He is also a member of the A.M.A. Legislative Committee.

The A.M.A. sent \$5,000 to Netherlands physicians to help alleviate suffering and devastation resulting from recent floods. The gift was voted by the Board of Trustees.

Health Department Annex Site of New KSMA Headquarters



K.S.M.A. headquarters move to right front office in Annex of State Department of Health main building, 620 South Third Street, Louisville.

All departments of the headquarters office of the Kentucky State Medical Association have moved to the Kentucky State Department of Health Annex building, adjacent to and connected with the main building housing the department at 620 South Third Street in Louisville.

The move was authorized by Bruce Underwood, M.D., Louisville, secretary and general manager of K.S.M.A., following the completion of two additional floors atop the main building.

For the first time the entire headquarters staff is being housed in one office. The various departments are bookkeeping, membership, Journal, secretarial, and the promotional office of the Field Secretary.

The new office is located on the first floor and is the first office on the right as you enter the annex from the parking area in front of the building.

President Names 3 Appointments

President R. Haynes Barr, M.D., Owensboro, has announced the following appointments in the Kentucky State Medical Association: Warren F. Sergeant, M.D., Lexington, to serve on the Committee on Emergency Medical Service, replacing John S. Sprague, M.D., Lexington; Leland E. Payton, M.D., Lynch, and Daryl P. Harvey, M.D., Glasgow, to serve as the K.S.M.A. representatives on the Kentucky Co-ordinating Heart Council.



—Owensboro Messenger Inquirer

Thirty Daviess County physicians are shown listening to the Telephone Seminar which was broadcast over a statewide hook-up January 27. "Abdominal Emergencies" was the title of the first of the 1953 series developed by the Kentucky State Medical Association in co-operation with the University of Louisville School of Medicine.

Thirty M.D.'s Sit in Day-Long Session on Emergency Service

Some thirty physicians, members of the Kentucky State Medical Association Committee on Emergency Medical Service and its eight subcommittees, held a day-long meeting in Louisville, January 29, to plan for emergency medical care in the event of a major disaster.

G. Y. Graves, M. D., Bowling Green, chairman of the Committee on Emergency Medical Service, presided at the opening session of the conference, which was held in the Brown Hotel. He explained that while his committee was greatly interested in providing adequate medical care in the case of an atomic burst, it also was seeking to organize the Kentucky profession for other types of emergency care that might grow out of a train wreck, hurricane, flood, or earthquake.

After reviewing the activities of his committee during the past year, including the promotion of physician training courses on treatment of radiation illness, organization of medical units for regional mobile support groups set up by the State Civil Defense Organization, symposium on civil defense at the annual meeting in 1952, and various newspaper, radio, and television publicity, he described the work yet to be done.

Dr. Graves said that each of the eight subcommittee chairmen had been given an outline of the duties that had been assigned to that group. He asked that each of the committees adjourn to rooms that had been provided for them and discuss their problems and make recommendations.

All committee and subcommittee members were invited to a luncheon which was attended by Judge Gilbert White, Frankfort, deputy director of the state Civil Defense Organization, and Paul M. Crawford, M.D., Louisville, state deputy director of Health Services. Each spoke briefly on the various aspects of perfecting a working organization.

Also attending the session was R. Haynes Barr, M.D., Owensboro, association president. Dr. Barr complimented Dr. Graves and the committee on the excellent results it had accomplished and the great amount of time and effort expended in behalf of this important association responsibility.

Neil Dalton, Louisville, Civil Defense Co-ordinator, spoke to the opening session of the conference, outlining some of the plans that were being developed for the Louisville area. He afterwards met with the subcommittees on radio, public information, and the speakers bureau.

Chairmen of the eight subcommittees are as follows: Training, Charles F. Wood, M.D., Louisville; supplies, Charles Stacey, M.D., Pineville; blood banks, W. Mountjoy Savage, M.D., Maysville, and co-chairman, Marion F. Beard, M.D., Louisville; hospitals, Leland E. Payton, M.D., Lynch; mobile units, Henry S. Harris, M. D., Bowling Green; public information, Harper E. Richey, M.D., Louisville; radio, J. Duffy Hancock, M.D., Louisville; and speakers bureau, J. Gant Gaither, M.D., Hopkinsville.

As the meeting adjourned, it was agreed that each of the sub-committees would continue their work and make recommendations back to the Committee on Emergency Medical Service at the end of three months.

Final Seminar April 28 to Feature Discussion of the Eye

"Ophthalmology in General Practice" is the subject of the final telephone broadcast of the season over the statewide hook-up, Tuesday evening, April 28, Robert Lich, M. D., Louisville, Chairman of the Kentucky State Medical Association Committee on Medical Education, has announced.

Burl Mack, M.D., of Pewee Valley, moderator of this last session, will direct the experts toward unveiling practical methods of examining the eye and the significance of these observations in general medicine and surgery, Dr. Lich said. He pointed out that the discussion would focus attention upon the eye as a barometer of distant disease as well as local pathology and its treatment.

Other members of the panel are: C. Dwight Townes, M. D., clinical professor of ophthalmology and chief of the section; Ephraim Roseman, M. D., professor of neurology and chief of section; and George W. Pedigo, Jr., M. D., clinical assistant professor in medicine and lecturer in therapeutics, all of the University of Louisville School of Medicine.

The University of Louisville School of Medicine has co-operated beautifully with the Kentucky State Medical Association in preparing material for these seminars, according to Dr. Lich. The Medical School prepares and mails the manuals and processes the slides that are sent to the local subscribing societies.

For the most part, according to the committee chairman, the seminars have been well received this season and the committee has received many letters of appreciation. Some have made constructive suggestions in these letters. The committee develops the seminars for the profit and benefit of the Kentucky State Medical Association membership, he said, and the committee welcomes suggestions for the improvement of the programs.

ACS Inducts Eight Kentuckians

Eight members of the Kentucky State Medical Association were inducted as fellows in the American College of Surgeons in 1952. They were:

C. Melvin Bernhard, M.D., Louisville; Daniel G. Costigan, M.D., Louisville; William N. Offutt, III, M.D., Lexington; H. Lester Reed, M.D., Louisville; Robert C. Richardson, M. D., Glasgow; Charles C. Rutledge, M.D., Pikeville; William M. Savage, M.D., Maysville; and Walker M. Turner, M.D., Paducah.

Dr. McCormick, AMA's Pres.-Elect to Address KSMA

Edward J. McCormick, M.D., Toledo, who will become president of the American Medical Association at the June meeting in New York, will speak at the President's luncheon during the Annual Meeting of the Kentucky State Medical Association in September.

Dr. McCormick is an active supporter of organized medicine both locally and nationally and has held many key posts. In the A.M.A. he is currently chairman of the Committee on Scientific Exhibits and a member of the Coordinating Committee.



DR. MCCORMICK

and he has been a member of the Board of Trustees for over five years. He formerly served on the Council on Industrial Health and the Council on Medical Service.

In Ohio, he has been president of the State Medical Association, the Toledo-Lucas County Academy of Medicine, and the Toledo Board of Health.

Dr. McCormick is a graduate of the St. Louis University, a member of the American College of Surgery, a diplomat in the American Board of Surgery, and a member of the International College of Surgeons.

Industrial Physicians Accept Bid to Louisville for 1954

An invitation to hold the 1954 Congress on Industrial Health at Louisville was accepted by the 13th Annual Congress, held January 20 to 22, at Chicago and attended by three Kentucky physicians who also participated in the Joint Conference of the A.M.A. Council on Industrial Health and state medical society representatives.

Members of the Kentucky State Medical Association who attended the meetings were Gracie R. Rowntree, M.D., and Asa Barnes, M.D., of Louisville, and W. Clark Bailey, M.D., of Harlan.

Dr. Rowntree, who presided at the Conference, said a similar pattern of a preliminary joint meeting will be followed at the 1954 Congress. In addition, he made the following announcement:

"We are very pleased that the Jefferson

County Medical Society has decided to participate in the 14th Annual Congress with us by holding its regular monthly meeting with the guest conferees, among them people interested in industrial medicine from all parts of the United States and Canada. Approximately 300 to 400 people are expected for the Congress."

Gates, Rickman Discuss Rural Health at Farm, Home Session

Recognition of the importance of action by laymen in the solution of many Kentucky rural health problems was emphasized by Aubrey D. Gates, Little Rock, field director of the A.M.A. Council on Rural Health at the Farm and Home Convention of the University of Kentucky College of Agriculture and Home Economics February 3, in Lexington.

A full half-day of the four day meeting was devoted to a general session on rural health. In addition to Mr. Gates, Miss Charlotte Rickman, health education consultant, Medical Society of North Carolina, spoke, and a skit produced by Dr. G. Miller, M.D., Morgantown, was presented.

Mr. Gates stressed six points as important elements in furthering good rural health: nutrition, sanitation, immunization, hospitals, adequate professional personnel, and voluntary health insurance.

Miss Rickman discussed some of the experiences of the Medical Society of North Carolina in its development of the rural health council movement in that state.

Doctor Miller's skit, which included among its participants besides himself representatives from nine different organizations, presented a dramatized picturization of how a community rural health council comes into being.

Dr. Love New Pres. of Radiologists

Jesshill Love, M.D., Louisville, was elected president of the Kentucky Radiological Society at the January meeting in Louisville.

H. L. Townsend, M.D., was named vice-president, Everett L. Pirkey, M.D., secretary-treasurer, and Sydney E. Johnson, M. D., councilor to the American College of Radiology. All are Louisville men.

The American Goiter Association will hold its 1953 meeting at Chicago's Drake Hotel, May 7, 8, and 9. It plans papers and discussion dealing with goiter and other diseases of the thyroid gland.

Dr. Kinsman Speaks Feb. 12, at 1st District, Murray

The first 1953 dinner meeting of the Kentucky State Medical Association's first Councilor District was held Thursday, February 12, in the Science building of Murray State College, Murray, with 38 physicians present.

J. Murray Kinsman, M.D., dean of the University of Louisville School of Medicine, presented an address on "Cardiac Arrhythmias," following a welcome by Dr. Ralph Woods, president of Murray State College.

The Calloway County Medical Society acted as hosts for the meeting, which was called by J. Vernon Pace, M.D., Paducah, First District Councilor. C. J. McDevitt, M.D., president of the host society, presided.

The following counties constitute the First District; Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, McCracken, and Marshall.

Ky. AAGP Asks Students, Interns to Annual Dinner, April 22

Senior students at the University of Louisville School of Medicine with their wives, and those interns and residents interested in general practice, and their wives, will be the guests of the Kentucky and Jefferson County chapters at the dinner meeting April 22, of the first two-day annual meeting of the Kentucky chapter of the American Academy of General Practice in the Brown Hotel.

Another feature of the dinner will be the presentation of the E. M. Howard General Practice Award for the first time to a member of the Academy at the annual meeting of the chapter. According to D. G. Miller, M.D., academy secretary, who made the announcement, this award to the outstanding Academy member is not to be confused with the annual Kentucky State Medical Association award and will not compete for the A.M.A. General Practitioner Award.

"The Meaning of the Academy of General Practice," will be the subject of a talk at the dinner by Joe M. Bush, M.D., Mt. Sterling, state chapter president, who will preside. The address of the evening will be presented by William Dern, D.D., Episcopal rector.

All interested physicians from Kentucky and adjoining states are invited to this two-day session, Dr. Miller said. Theme of the meeting will be "Recent advances in medicine as they will apply to general practice." All academy

members will be given ten hours credit for attending both days. A registration fee of \$5.00 will be charged.

The Wednesday scientific program will present such well known men as Neal Owens, M.D., Tulane University; Albert Weinstein, M.D., Vanderbilt University; Richard E. Goldsmith, M.D., University of Cincinnati; Claude Starr Wright, M.D., Ohio State University; and Thomas E. Shaffer, M.D., Ohio State University.

Faculty members of the University of Louisville School of Medicine will present the entire program for the second day.

Sixth District Meeting April 28 to Hear Phone Seminar

The Sixth Councilor District will feature the Telephone Seminar on "Ophthalmology in General Practice" at its first 1953 meeting on April 28, in Bowling Green, where the Warren-Edmonson County Medical Society will act as host, it was announced by Councilor L. O. Toomey, M.D., Bowling Green.

Richard F. Grise, M.D., secretary of the district, arranged with the Kentucky State Medical Association to present the program. J. Carter Moore, Jr., M.D., Franklin, president of the district, will preside. The Auxiliary of the Warren-Edmonson Society will join in the program that evening at Bowling Green by entertaining the wives of the district members.

The program will embrace a discussion by C. Dwight Townes, M. D., clinical professor of ophthalmology, Ephraim Roseman, M.D., professor of neurology, and George W. Pedigo, Jr., M.D., clinical assistant professor in medicine and lecturer in therapeutics, all of the University of Louisville School of Medicine. H. Burl Mack, M.D., Pewee Valley, will act as moderator. Photographic slides identical with those discussed at the point of origin will be shown during the telephoned program.

Thirteenth to Meet May 5

The Kentucky State Medical Association 13th Councilor District will hold a meeting at the Henry Clay Hotel, Ashland, Tuesday, May 5, it has been announced by Clyde Sparks, M.D., Ashland, District Councilor.

Boyd County Medical Society will act as hosts for the meeting, program details for which will be announced later. Other counties in the district are: Lewis, Greenup, Rowan, Carter, Elliott, Lawrence, and Morgan.

Votes to Increase Dues, Employ Executive Secretary

The Jefferson County Medical Society voted unanimously to raise its annual dues from \$10 to \$40 a year in order that it might expand its program of activity and employ a full-time lay executive secretary at its annual meeting, January 20.

The vote was taken after the retiring president, Richard R. Slucher, M.D., Buechel, explained the advantages of broadening the society's service and administrative activities and exhorted the 150 members present to modernize its program.

Arthur T. Hurst, M.D., Louisville, was installed as president, and David M. Cox, M. D., St. Matthews, was named president-elect. C. Melvin Bernhard, M.D., was elected first vice president and Huston W. Shaw, M.D., second vice president. John S. Llewellyn, M. D., secretary, and Alfred O. Miller, M.D., treasurer. The last four named are from Louisville.

A Committee, of which Dr. Cox is chairman, is at work interviewing applicants for the newly created position of executive secretary.

Student AMA Names UL Students to Committee Posts

John Huff, junior medical student at the University of Louisville and 1952 delegate to the Student American Medical Association, has been appointed a member of the national body's committee on medical service, and Charles McGaff, senior medical student was re-elected to the executive council.

Both were among the 225 delegates, alternates, and guests who gathered at Chicago in December for the second annual convention of the S.A.M.A. Beginning with 1953, the organization will hold its annual meeting in June to coincide with completion of the school year.

Charles McGaff served last year as vice chairman on the committee on selective service, whose recommendations, adopted by the House of Delegates of the S.A.M.A., subsequently were submitted to the A.M.A. Advisory Committee on Selective Service and to the Senate and House committees on selective service. The recommendations proposed a point system in doctor draft legislation which would consider all previous military service, regardless of branch or rank, and synchronization of draft calls with hospital training programs to expedite post service medical training.

The December convention set up the committee structure to study internships, selective service programs, medical and pre-medical education, and army internships as a service to students with program preference. Most extensive work will be done on the highly variable internship programs and will involve regional surveys among interns and regional meetings to compile the results for national digestion.

Anesthesiologists Elect Officers, Hold Annual Meeting

Willard D. Bennett, M.D., Louisville, became president-elect of the Kentucky Society of Anesthesiologists at their annual meeting at Louisville on Sunday, January 18, and Stephen R. Ellis, M.D., also of Louisville, was installed as president, succeeding Warren F. Sergent, M.D., Lexington.

Others elected were F. Hays Threlkel, M.D., Owensboro, vice-president, Alfred T. Wagner, M.D., Louisville, secretary-treasurer, and Robert P. Bergner, M.D., and E. H. Baker, M.D., of Louisville, delegate and alternate respectively, to the American Society of Anesthesiologists.

Guest speakers were Orville A. Zeller, M.D., Lexington, who talked on "The Use of Succinylcholine in the Practice of Anesthesiology"; Benjamin H. Robbins, department of anesthesiology, Vanderbilt University Medical School, Nashville, whose subject was "Anesthetic Fatalities in the University Hospital."

The K.S.A., which has a total membership of 46, meets three times a year, according to Dr. Wagner. The annual meeting is held in January each year at Louisville, and spring and fall meetings are held in different parts of the state.

Annual Meeting to Memorialize 1873 Pres., Dr. Rogers

The practice of the Annual Meeting of the Kentucky State Medical Association to memorialize a past president will be resumed at the September 22 to 24, 1953 session.

Lewis Rogers, M.D., who served as the president of the Association in 1873, will be honored this fall.

Exception was made to this practice in 1951, when during the Centennial session Ephraim McDowell, M.D., was honored and in 1952, when Daniel Drake, M.D., was memorialized on the centennial of his death.

Break Ground W. Va., Med. School

Ground-breaking ceremonies were held December 9, 1952, at the site of the new four-year school of medicine to be constructed at West Virginia University at Morgantown, with the state governor and the governor-elect, university officials and staff members, and representatives of the medical, dental, and nursing professions participating.

The school will be part of a new medical center which will also include a four-year dentistry school and training school for nurses. It replaces the two-year school of medicine long maintained by the state which granted degrees jointly in arrangement with the Medical College of Virginia at Richmond. The first unit to be built will be the \$835,040 mechanical plant.

TB Control Co-ordinating Council Meets, Elects Dr. Gernert

R. E. Gernert, M.D., Louisville, representing the Kentucky Tuberculosis Association, was made president of the Kentucky State Coordinating Council for the Control of Tuberculosis at its organizational meeting held in December in the offices of Bruce Underwood, M.D., secretary and general manager of the Kentucky State Medical Association.

The Council is made up of two representatives from each of the following: the Kentucky State Medical Association, Hugh L. Houston, M.D., Murray, and George W. Pedigo, Jr., M.D., Louisville; the Kentucky State Department of Health, B. M. Drake, M.D., and Paul M. Crawford, M.D., Louisville; the Kentucky Tuberculosis Association, Doctor Gernert and Irvin Nichols, Louisville; and the State Tuberculosis Hospital Commission represented by E. M. Josey and Joe D. Miller of Frankfort. Doctor Pedigo was chosen vice-chairman and Mr. Miller, secretary of the Council. Others attending the organizational meeting included Bruce Underwood, M.D., who acted as temporary chairman, L. O. Toomey, M.D., of Bowling Green, W. F. Lamb, M.D., of Louisville and Homer Hall of Louisville.

The first item for discussion by the Council was the proposed changes in case-finding procedure. The following recommendations were adopted, on a trial basis, for one year:

1. "That the Council recommend approval of a change-over in the reporting of survey films of chest x-rays to include a final type report on cases formerly put in the follow-up group."
2. "That advice formerly given to the family

physician be discontinued and the recommendation be made to the private physician that if future diagnostic methods be involved for confirmation that he afterwards report his findings to the local health department, in order to complete their record."

Other business included the naming of a committee to investigate the possibility of increasing the number of beds in existing state tuberculosis hospitals; recommendation and adoption of measures to define the role of each member agency in the tuberculosis program; recommendations that the K.S.M.A. institute refresher training courses and include a telephone seminar on tuberculosis; dissemination of information to nurses regarding tuberculosis nurse training; and the effect of federal budget reductions on case-finding programs.

It was agreed the agenda for the next meeting would include:

1. Surgery for patients in county tuberculosis sanatoria.
2. How federal budget cuts will affect tuberculosis case finding in Kentucky.
3. The findings of the Committee on additional beds for existing State Tuberculosis Hospitals.

Officers Serve Forty Years, Resign

A 40 to 45-year service ended recently when H. G. Davis, M.D., of Marrowbone and William F. Owsley, M.D., of Burkesville resigned as president and secretary, respectively, of the Cumberland County Medical Society and were succeeded by Joseph Schickel, M.D., and William F. Boyer, M.D., of Burkesville.

Chicago M.D. to Lecture March 23

Lester R. Dragstedt, M.D., Chicago, will deliver the 1953 Samuel Gross Lectureship, sponsored by Phi Chapter of Phi Delta Epsilon Fraternity, March 23, in the amphitheater of General Hospital, Louisville, according to Howard D. Fink, committee chairman.

Title of the lecture is "Recent Studies on the Physiology of Gastric Secretion and the Peptic Ulcer Problem." All physicians and medical students are invited.

University of Louisville alumni have started a drive to raise \$500,000 to endow a chair of medicine as a memorial to the late John Walker Moore, M.D., former dean of the University of Louisville School of Medicine, who died last November 10, it was reported in the University Alumni News.

Dr. Rowntree to Speak at AAGP

Gradie R. Rowntree, M.D., Louisville, will address the Fifth Annual Scientific Assembly of the American Academy of General Practice at St. Louis, March 24, on "Industrial Medicine in General Practice."

The Academy meeting will run from March 23 to 26 and feature as speakers many prominent men in their fields and have as many as 60 scientific exhibits. Dr. Rowntree is chairman of the Kentucky State Medical Association Committee on Industrial Medicine and Surgery, and presided at the recent conference of state representatives with the A.M.A. Council on Industrial Health.

Panel on Gamma Globulin Reports to ODM on Allocation Study

Recommendations on allocation methods of gamma globulin during the next poliomyelitis season were made recently by a National Research Council panel appointed to advise the Office of Defense Mobilization, according to a recent A.M.A. Washington letter.

Closed meetings had been held by the seven-man panel on allocations deemed necessary as a measure in the interest of public health should demand for the blood fraction be sufficiently accelerated. The American Red Cross, which assumes responsibility for procurement and production cost of the blood fraction has announced the raising of its fund goal to help finance its part of the program.

Chairman of the panel is the former health director of the Louisville-Jefferson County Health Department, Hugh R. Leavell, M. D., now professor of preventive medicine and public health, Harvard University Medical School. Bruce Underwood, M.D., Louisville, state health commissioner for Kentucky and secretary and general manager of the Kentucky State Medical Association, represents the Association of State and Territorial Health Officers on the panel.

Other members are: Thomas P. Murdock, M.D., member, Board of Trustees, American Medical Association; John D. Porterfield, M.D., director, Ohio Department of Health; Alexander Langmuir, M. D., chief of epidemiology branch, Communicable Disease Center, representing Public Health Service; James A. Shannon, M.D., associate director, National Institutes of Health; and William McD. Hammond, M.D., University of Pittsburgh School of Public Health.

Pertinent Paragraphs

Mrs. Oleta Culp Hobby was handed the reins of the Federal Security Agency's health and welfare operations January 22, succeeding Oscar Ewing, former administrator. Before she was sworn into office with eight members of the new cabinet, she appeared before the Senate Finance Committee and listed personal stock holdings of \$100,000, and preferred stock at \$750,000 held jointly with her husband, W. P. Hobby, in the *Houston Post* for which she was co-editor. Mrs. Hobby testified she had resigned from various boards and pledged her absolute neutrality and inactivity in governmental matters concerning any company with which she has been associated.

Revisions of the "doctor draft law" recommended by the Armed Forces Medical Policy Council since the A.M.A.'s December meeting will be announced after approval by the Department of Defense. Presumably they will replace present categories with two groups of classification: (1) Persons without World War

II service records, the youngest to be called first, and (2) persons who have served, those with shortest records to be called first. Other provisions would make special registrants now in priorities 1 and 2 liable to induction when available for duty and those with at least 12 months active duty status since June 25, 1950, exempt from further service.

Revised "Essentials of an Approved Internship" became effective January 1, after ratification by the A.M.A. House of Delegates on the recommendation of the Advisory Committee on Internship. The revisions are: Approval by the Joint Commission on Accreditation of Hospitals; bed capacity increased to 150, exclusive of bassinets; annual admissions increased to 5,000, exclusive of the newborn; and the autopsy rate increased to 25 per cent.

An American Medical Veterans Society was organized recently at a Toledo meeting of Midwest physician veterans and a Toledo physician named temporary president until the annual meeting of the A.M.A. at New York in June, when officers will be selected on an annual basis.

News Items

William L. Cooper, M.D., will speak before the West Virginia Chapter of the Academy of General Practice at Charleston, May 16. The title of his address is "Etiology of Pain in the Anorectal Region."

John E. Cotthoff, M. D., has moved from Princeton to Kuttawa, where he is engaged in the general practice of medicine. Dr. Cotthoff is a 1948 graduate of the University of Tennessee College of Medicine and served an internship at the John Gaston Hospital, Memphis.

James M. Keightley, M.D., has returned to Harrodsburg to re-establish his practice after serving in the Armed Forces from 1951 to February of this year. Dr. Keightley graduated in 1947 from the University of Louisville School of Medicine.

Margaret G. Smythe, M.D., after many years as medical missionary in China, has settled in Lexington and is located at Berea College, Berea, for the practice of medicine. Dr. Smythe graduated from Rush Medical College in 1926 and served her internship in Chicago.

When **J. Murray Kinsman, M.D.**, dean of the University of Louisville School of Medicine, arrived in Owensboro, February 2, to address the Rotary Club luncheon, he accepted three other speaking engagements on the same day, addressing the senior classes at two high schools and an evening meeting of University of Louisville alumni.

Harvey R. St. Clair, M.D., recently established an office in the Heyburn Building at Louisville for the practice of psychiatry. Graduating from the Medical College of Virginia in 1945, Dr. St. Clair served his internship at the U. S. Marine Hospital, New Orleans, and subsequent residencies at U. S. Veteran hospitals and at Johns Hopkins Hospital. He was formerly with the Veterans Administration in Louisville.

A. A. Shaper, M.D., Louisville, attended the Eighth International Pan American Medical Association Cruise Congress in January, aboard the S. S. Nieuw Amsterdam, visiting Port au Prince, Haiti; Cargagen, Colombia; Panama; and Havana. Dr. Shaper served as chairman at the Pediatrics Session.

County Society Reports

JEFFERSON

The 465th meeting of the Jefferson County Medical Society was held Monday evening, December 15, 1952 at the Seelbach Hotel. Eighty-nine members were present for dinner.

The meeting was called to order by the president, R. R. Slucher, M.D.

The president introduced Mr. H. L. Scott, president of the United Cerebral Palsy of Kentucky, who asked the society's approval to invite R. E. Bruner, M.D., medical director, Cerebral Palsy Center, Wichita, Kansas, to conduct a series of clinics on a fee basis for a six-months period.

Charles Maguire, M.D., moved that the society approve the importation of Dr. Bruner by the Cerebral Palsy Committee. Carried.

The minutes of the previous meeting were read and approved.

The secretary read (1) a communication from the American College of Surgeons inviting members to attend a sectional meeting of the American College of Surgeons in Cincinnati, Ohio, January 19 to 21, 1953; (2) a communication from the Kentucky State Medical Association asking the society to consider recommendations passed by the House of Delegates at its 1952 session regarding secretaries of county societies.

It was moved and carried that the K.S.M.A. communication be filed.

The following new members were elected:

Doctors Benjamin D. Boone, active membership; C. H. Crudden, active; Gwilyn R. Jones, active; Paul Pedersen, active; and Jack L. Mulligan, associate.

Thirty-four dentists, members in good standing of the Louisville District Dental Society, were elected to associate membership. Their names will be printed in the Bulletin.

George Pedigo, Jr., M.D., chairman, Professional Relations Committee, reported that the committee had studied the letter from the Jefferson County Chiropody Society and did not believe it required action. A motion that the report be accepted was carried.

C. T. Moran, M.D., presented the report of the committee appointed by the president of the Jefferson County Medical Society to evaluate the possibility of whether the dust in the West End presents a health hazard. The committee found that a potential health hazard exists in the West End and recommended that a survey be made by the Louisville-Jefferson County Health Department.

After questions and discussion by Doctors Shiflett, Flexner, and Gaupin, a motion by Harry Goldberg, M.D., to accept the report was carried.

Gracie Rowntree, M.D., moved that the Jefferson County Medical Society meet with the annual Congress on Industrial Health of the A.M.A. to be held in Louisville February 24, 1954. Carried.

Dr. Slucher stated that several members of the Board of Directors of the Red Cross Hospital had asked him to announce that the feeling expressed in the letter in the Point of View column of the Courier-Journal the previous day was the feeling of one member of that Board and not of the Board itself.

A scientific program followed. E. H. Sanneman, Jr., M.D., spoke on "Blood Transfusions: Dangers and Indications." There was a discussion by Doctors Oscar Bloch, Morris Flexner, Marion Beard, E. S. Allen, Glenn Bryant, Harry Goldberg, and closing remarks by Dr. Sanneman.

Robert C. Long, Secretary

JOHNSON

The Johnson County Medical Society met at the Hotel Herald in Paintsville the evening of January 15, 1953 with the following attendance of physicians and their wives:

Doctors Paul B. Hall, Lon C. Hall, Robert A. Hall, John W. Turner, James Archer, Charles L. Preston, D. H. Dorton, Jr., and A. D. Slone.

The following dentists and their wives were also present: Doctors J. H. Rapier, G. P. Salyears, G. M. Stafford, and A. F. Williams.

Guests of the society were Doctors Howard E. Dorton of Lexington and Lloyd M. Hall of Salyersville with their wives, and Mr. and Mrs. Robert Willmott of Lexington.

Charles L. Preston, M.D., was elected president for the new year, Lon C. Hall, M. D., Paintsville, vice-president, and A. D. Slone, M.D., secretary and treasurer. All are in Paintsville.

It was announced that at the next meeting, February 24, a film would be shown on "The Toxemia of Pregnancy," and later, on March 19, the society would be host to the Cancer Mobile Clinic.

After the business meeting Dr. Horton and Mr. Willmott, who was from the Isotope Laboratory in Lexington, gave an informative discussion on the use of isotopes in medicine.

Augustus D. Slone, M.D., Secretary

LETCHER

The Letcher County Medical and Dental Society met in the office of Dr. R. Dow Collins, Whitesburg, on the evening of January 26, 1953. The following were present: B. C. Bach, M.D., R. Dow Collins, M.D., Carl Pigman, M.D., Owen Pigman, M.D., Lee Moore, D.M.D., and Fred Coffey, visiting pharmacist.

The meeting was called to order by the president, Dr. Bach. The minutes were read and approved.

Mr. Coffey gave a brief talk concerning the status of physician and druggist.

There was a general discussion among the members of the United Mine Workers Welfare program and other methods of practice originating from a welfare setup.

Owen Pigman, Secretary and Treasurer

McCRACKEN

The monthly meeting of the McCracken County Medical Society was held on December 17, 1952, with President Eugene Blake, M.D., presiding.

It was moved to hold the meetings in the future on a lower floor of the hotel. Motion carried.

Applications for W. W. Blankenship, M.D., and E. E. Ramey, M.D., were referred to the Board of Censors.

It was moved by Walker Turner, M.D., and seconded by J. M. Hunt, M.D., that the society subscribe to the K.S.M.A. sponsored Telephone Seminars. Motion carried.

The treasurer reported total funds of \$721.14 in the treasury. Vernon Pace, M.D., moved that the report be accepted. Motion carried.

An election was held and the following doctors were elected to office as named:

George H. Widener, president; D. Y. Keith, vice-president; M. W. Fowler, Jr., secretary-treasurer; Robert L. Reeves, state delegate for 1953; James A. Ward, delegate for 1953-54; Harry Abell, alternate delegate for 1953; Charles Billington, alternate for 1953-54.

The following were elected to the Board of Censors: Doctors Errett Pace, 1953. James A. Ward, 1954-54, and Bob C. Overbey, 1954-55.

The following physicians were appointed to committees as named:

Logan Weaver, Walker Turner, and D. Y. Keith, emergency medical service; Eugene Sloan, R. M. Wooldridge, and Charles B. Billington, diabetes detection; J. E. Dunn, Eugene Sloan, and C. J. Purdy, amplifier; Coles W.

Raymond, James Ward, and W. B. Haley, voluntary medical insurance; Walter Johnson, H. S. Gardner, and R. W. Breyspraak, public relations.

Vernon Pace, Harold Priddle, Pittman Orr, library; Charles Billington, Walter Johnson, and Robert Reeves, legislature; Eugene Blake, O. N. Maxey, and Vernon Pace, Program; D. Y. Keith, Charles Billington, R. M. Wooldridge, and Pittman Orr, emergency medical care (home calls); and J. M. Hunt, Goodlow Sargent, and E. E. Ramey, rural health.

Doctors Charles W. Harting, R. M. Wooldridge, and James A. Ward were recommended for membership on the Board of Health. The recommendations were sent to the executive secretary of the Kentucky State Medical Association.

The meeting was adjourned.

McCRACKEN

The McCracken County Medical Association met at the Ritz Hotel, Paducah, on the evening of January 28, 1953, Dr. George H. Widener presiding.

The scientific program was conducted by Dr. Henry Work of Louisville, who discussed clinical aspects and present methods of management of poliomyelitis. A discussion followed.

There was a five-minute discussion on the control of rabies in McCracken County and in the state by Dr. Rowles.

After opening of the business session the minutes were read and approved. The appointment of Dr. Robert Reeves as delegate for 1953 at the previous meeting was ruled out of order when it was pointed out that Dr. Leon Higdon had previously been appointed to the post.

Doctors W. M. Blankenship and E. E. Ramey were admitted to the society by unanimous vote. The application of Dr. Harry Abell, Jr., was read to the society and referred to the Board of Censors.

It was moved and seconded that all letters from prospective physicians to this community be answered inviting them to look over the town without recommendations.

It was moved that Dr. Keith Sloan be reinstated by payment of 1953 dues. Motion carried.

It was voted to retain the monthly meeting dates previously scheduled.

M. W. Fowler, Jr., Secretary

MUHLENBERG

The Muhlenberg County Medical Society met on January 16, 1953, with the following members present: Doctors Simpson, Woodson, Bechtel, Brockman, Rodman, and F. Wilson.

The meeting was called to order by the president and the secretary read the minutes of the preceding meeting, which were approved.

The secretary announced the program for the Telephone Seminar series of the state association and Dr. H. H. Woodson was appointed to make the necessary arrangements.

Dr. Simpson reported for the Credentials Committee that Dr. Hartleb of Chicago, Illinois, was establishing practice in Drakesboro, and Dr. Hartleb was introduced. The committee is to submit recommendations with reference to Dr. Hartleb's admission to the society at the next meeting.

After the business meeting an informal clinical session was held.

G. F. Brockman, M.D., Secretary

SCOTT

The Scott County Medical Society met on Thursday, January 8, 1953, at the John Graves Ford Memorial Hospital in Georgetown. The following members were present:

Doctors Fred W. Wilt, W. S. Allphin, A. F. Smith, H. G. Wells, E. C. Barlow, and H. V. Johnson.

Mr. Jack Tucker, coroner of Scott County, was the guest of the secretary.

Minutes of the previous meeting were read and approved.

The question of the physician shortage in Scott County was discussed. It developed that Dr. Campbell Cantrill wishes to be relieved of his duties with the Marine Corps so that he can return to Georgetown. After much discussion it was moved that the society use its influence to secure his discharge from the Marine Corps to allow him to return to practice in Georgetown. Carried.

The secretary was instructed to write to Dr. D. E. Clark expressing regrets of the members that he is leaving Georgetown and extending best wishes for his success in the future.

H. V. Johnson, Secretary

UNION

The Union County Medico-Dental Society met on Tuesday evening, January 20, 1953, at Our Lady of Mercy Hospital, Morganfield. With the exception of three members who were

ill, the society was in complete attendance.

The meeting was called to order by G. B. Carr, M.D., president, and minutes of the last meeting were read and approved.

The secretary read several communications of importance to all physicians in relation to A.M.A. reports.

Dr. Bargo discussed the fluoridation of water and its value to dental health. Further discussion of the subject was planned for the next meeting, and the secretary was instructed to request the State Department of Health to send qualified personnel to a meeting with Dr. Bargo, the county health director, and the city council of Morganfield and Sturgis for the consideration of the fluoridation process and cost.

Guest speaker was L. A. Mezera, M.D., director of the Division of Maternal and Child Welfare, State Department of Health, Louisville. Dr. Mezera told of the importance of nutrition-education programs for parents and the beneficial effects of immunization for children at all ages. There were many questions from the floor after the talk.

A. W. Andreasen, M.D., Secretary-Treasurer

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met January 13, 1953, with President W. R. McCormack, M.D., presiding.

The following items of business were handled:

(1) Dues for 1953 were set at \$100.00, including A.M.A. and K.S.M.A., and \$20.00 for each physician toward nurses scholarships.

(2) It was voted that the Warren-Edmonson County Society subscribe to the Telephone Seminar to be distributed by the K.S.M.A. in Louisville the last Tuesday of the first four months of the year.

(3) Committees for the coming year were appointed by Dr. McCormack.

(4) The society was recorded as favoring the March of Dimes and the Crippled Children program, sponsored by the Lions Club over our local radio stations, and all physicians were asked to go out to the broadcasting stations at every available opportunity.

(5) It was voted to have refreshments for the Sixth District members for the April meeting. Dr. Grise to handle the arrangements.

An informative discussion of the activity of the Blue Cross and Blue Shield organizations was given by two of their representatives.

Charles M. Francis, M. D., Secretary

WHITLEY

The Whitley County Medical Society met on January 6, at the Corbin Municipal Hospital. It was moved and carried to combine offices of the staff of the hospital with office of the society.

The following new officers were elected for 1953:

Keith P. Smith, M.D., Corbin, president of Whitley County Medical Society and of Staff of the Corbin Municipal Hospital; L. X. Brown, M.D., Williamsburg, vice-president; Raymond Ohler, M.D., Corbin, secretary; and William Brown, M.D., delegate to the Kentucky State Medical Association.

It was moved and carried to act according to recommendations of the Kentucky State Medical Association and elect the county secretary for a period of three years. Dr. Ohler, secretary for 1952, was re-elected for a three-year period starting the first Tuesday in January, 1953.

Darwin Smith, M.D., was elected to membership in the society and to active staff membership at the hospital.

It was moved and carried to recommend that the president of the hospital staff open negotiations with the U.M.W.A. concerning consulting specialists at the hospital in connection with U.M.W.A. patients.

Committees were appointed by the staff president as follows:

Doctors Harris Terrell, William Brown, and William Ohler, credentials; Doctors L. U. Gilliam and Darwin Smith, records; Doctors Gilliam and Smith, liaison between staff and hospital supervision.

It was moved and carried to bring the telephone seminar of K.S.M.A. to the society, to be held in the regular society meeting room at the hospital, at 8 p.m., E.S.T., on the last Tuesday in the first four months of the year, each ending at 9:30.

The Oak Ridge Institute of Nuclear Studies, Special Training Division, will offer medical and biological personnel three basic courses in radioisotopes techniques for four-week durations beginning June 8, July 6, and August 10; and an advanced course in autoradiography June 15 to 25, intended for research level personnel.

In Memoriam

HAROLD HUNT RUTLEDGE, M.D.

Richmond

1910 - 1953

Dr. Harold Hunt Rutledge, Richmond, suffered a heart attack at Standiford Field, Louisville, and died later at the General Hospital, February 11, 1953.

He was a native of Madison County and was graduated from Eastern Kentucky State College, Richmond, and in 1936 from the University of Louisville School of Medicine. He received postgraduate instruction at Bellevue Hospital, New York, and served in the medical corps in World War II.

Dr. Rutledge was formerly Health Officer of Whitley and Madison Counties; and his sudden death was a shock to all his friends, as he was a faithful supporter of organized medicine.

JOSIAH W. MULLIKIN, M.D.

Ewing

1883 - 1953

Dr. Josiah W. Mullikin died January 23, 1953.

He was born in Robertson County where he served as superintendent of the county schools before moving to Ewing. He was graduated from the Medical Department, University of Louisville, in 1910, and began his practice in Ewing in 1914.

Dr. Mullikin continued his practice in Ewing until his death.

WILLIAM THOMAS BUCKNER, M.D.

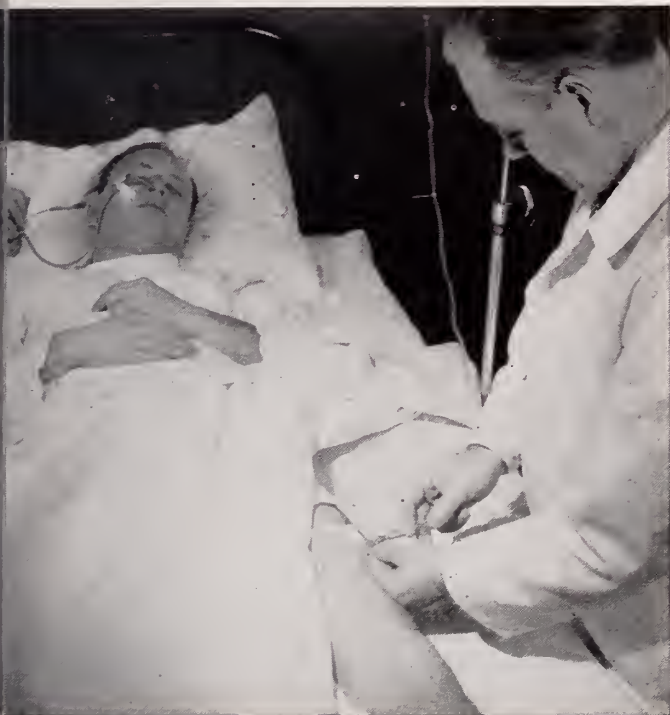
Shelbyville

1867 - 1953

Dr. William Thomas Buckner died on February 1, 1953.

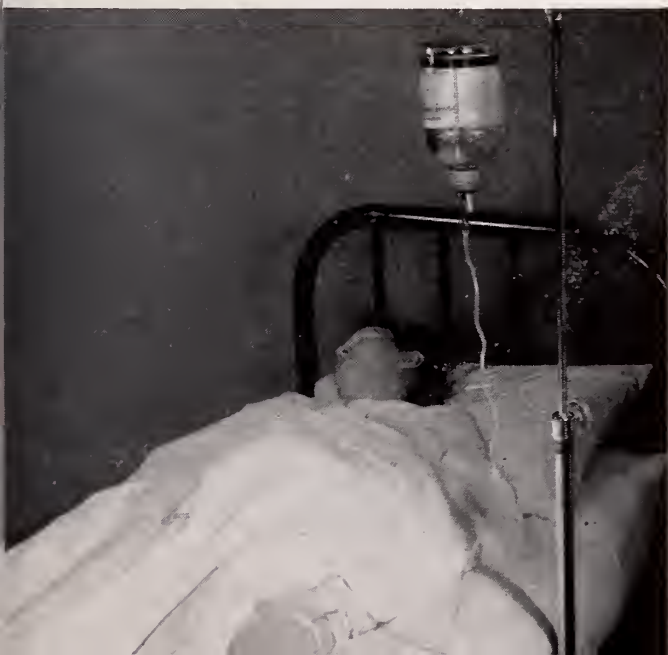
He was born in Spencer County and later moved with his family to Shelby County. He was graduated from Georgetown College and the Medical Department, University of Louisville, in 1893. Later he took postgraduate work at Columbia University.

Use of Alidase® Permits Subcutaneous Administration of Fluids at Usual Intravenous Rates



In operative states—Alidase circumvents the complicating factors of venous thrombosis and "wornout" veins which frequently make fluid administration by vein difficult and dangerous. Simplicity and safety of Alidase make hypodermoclysis a method of choice for preoperative preparation and postoperative maintenance.

In burns—Plasma and electrolyte solutions can be given subcutaneously at effective rates when Alidase is employed; collapsed veins or risks of thrombosis are not a problem with this method.



Addition of Alidase to the first few cubic centimeters of fluid during hypodermoclysis speeds absorption to a degree approximating that of the intravenous route. Use of highly purified hyaluronidase in this manner avoids the well-known difficulties encountered with venoclysis, saves valuable nursing time and is more comfortable to the patient.

Hechter, Dopkeen and Yudell¹ have found that the use of hyaluronidase has "markedly increased the rates of absorption and administration of hypodermoclysis with no untoward reactions." They also found that extremely small amounts of this enzyme facilitated the absorption of fluids in that greater amounts of fluids were absorbed by the patient in a given period of time and that the localized swelling following hypodermoclysis disappeared more promptly.

Similar results with Alidase were recounted by Schwartzman, Henderson and King.² They observed "that absorption of various types of solutions, such as saline, glucose in saline, Hartmann's solution, Ringer's solution, penicillin, streptomycin, Adrenalin, and procaine was facilitated in every case."



In toxemias of pregnancy—Urgently-needed parenteral fluids may be administered subcutaneously with the aid of Alidase, eliminating risk of thrombosis attending repeated intravenous administration of electrolyte solutions. Alidase is the highly purified Searle brand of hyaluronidase and is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

G. D. SEARLE & Co. *Research in the Service of Medicine*

1. Hechter, O.; Dopkeen, S. K., and Yudell, M. H.: The Clinical Use of Hyaluronidase in Hypodermoclysis, *J. Pediat.* 30:645 (June) 1947.
2. Schwartzman, J.; Henderson, A. T., and King, W. E.: Hyaluronidase in Fluid Administration: A Preliminary Report, *J. Pediat.* 33:267 (Sept.) 1948.

Dr. Buckner entered medical practice at Forks of Elkhorn and later moved to Shelbyville where he practiced his profession for more than 50 years.

Dr. Buckner was formerly county health officer, retiring in 1943. He was always an active member of the Shelby County Medical Society and was a former member of the city council and city school board.

OTTER R. REESOR, M.D.

Louisville

1880 - 1953

Dr. Otter R. Reesor died on January 21, 1953.

He was born in Meade County and was graduated from the Louisville Medical College in 1901. He began his practice in Campbellsville and in 1916 became its mayor, serving until he enlisted in the army in World War I.

After termination of his war experience, Dr. Reesor returned to Louisville and was appointed medical director of the State Workmen's Compensation Board. He maintained an office in Louisville until his retirement in 1951.

He was a member of his local, state, and national medical associations as well as several fraternal lodges.

A. A. WESTERFIELD, M. D.

Utica

1871 - 1952

Dr. A. A. Westerfield, Utica, died December 30, 1952. He was 81.

Born in Daviess County in 1871, he graduated from Barnes College of Medicine, St. Louis, in 1896, and immediately took up his profession and practiced at Utica, Kentucky, where he remained until his death.

Dr. Westerfield was a typical country doctor of the "horse and buggy age" and never failed to answer a call in all types of weather and all hours of the day.

COLEMAN J. McDEVITT, M. D.

Murray

1910 - 1953

Dr. Coleman J. McDevitt, died suddenly February 5, 1953, in Louisville while on a visit en route to a vacation trip in Florida. He was a surgeon at the Houston-McDevitt Clinic and physician for Murray State College.

Born in Louisville, Dr. McDevitt received his education at the Louisville public schools and was graduated from the University of Louisville School of Medicine in 1935.

Dr. McDevitt was president of the Kentucky Obstetrics and Gynecology Association and a member of the American College of Surgeons, his local medical society, the Kentucky State Medical Association, and the American Medical Association.

BOOK REVIEWS

HEMATOLOGY FOR THE MEDICAL TECHNOLOGIST by Charles E. Seiverd, B. S., M. T. (ASCP), Chief Technician, Doctor's Clinical Laboratory; Director of Research, The Horizon Laboratories, Sunnyslope, Arizona; 45 illustrations and 7 colored plates, Lea & Febiger, Philadelphia, Publishers, 1952.

This manual seeks to aid students in their preparation for the registry examination by stressing and simplifying those aspects of hematology which are significant to the medical technologist. It is the result of a research project which endeavored to answer two questions: What material is needed in a technologist's manual of hematology? How can this information be presented in a clear concise manner? The project required about eighteen months and called for the combined efforts of technicians, teachers, students, and physicians.

It can also be used as a physician's manual. It is a suitable size to place by the desk to assist the physician in interpreting reports in the clinical laboratory.

PHYSICIAN'S HANDBOOK by Marcus A. Drupp, M. D., Assistant Clinical Professor of Medicine, Stanford University School of Medicine, Director Palo Alto Medical Research Foundation, Palo Alto; Norman J. Sweet, M. D., Assistant Professor of Medicine, University of California School of Medicine, San Francisco; Ernest Jawetz, Ph.D., M. D., Associate Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; Charles D. Armstrong, M. D., Clinical Instructor in Medicine, Seventh Edition, Lange Medical Publications, University Medical Publishers, Post Office Box 1215, Los Altos, California.

This Handbook offers a readily available source of factual data, laboratory procedures, and clinical aids repeatedly used in all branches of medicine. The volume is designed as a

It had to be good to get where it is



THE COCA-COLA COMPANY

There is a Difference in Glasses!

When we fill your prescription for glasses, we use only the finest lenses, selected for quality, and ground in our own laboratory—we use only the finest quality frames—we conform your prescribed glasses to your facial characteristics.

We fill Eye Physicians' prescriptions for your glasses only when you, yourself, bring the prescription to us—we DO NOT FILL ANY OTHER PRESCRIPTIONS.

our charges are moderate

SOUTHERN OPTICAL CO.

Incorporated

334 W. Broadway
Heyburn Bldg.



4th and Chestnut
Francis Bldg.

LOUISVILLE, KENTUCKY

handy pocket-reference for both student and physician. With the introduction of new material, it became apparent that some of this material required elaboration. The authors recognize that exception may be taken to certain of the chapters which, for the sake of brevity, must be dogmatic.

In this edition most of the sections have been thoroughly revised and often expanded. Further emphasis has been given to basic principles which aid in understanding the material presented. The section on surgery has been completely rewritten.

VIRAL AND RICKETTSIAL INFECTIONS OF MAN, Edited by Thomas M. Rivers, M. D., Director of the Hospital, The Rockefeller Institute for Medical Research, New York. The second edition, 90 illustrations, including 7 plates in color. J. B. Lippincott Company, Philadelphia, Publishers. Price \$7.50.

The second edition includes a thorough review of the material, plus the addition of new information in order that physicians and students may keep abreast of the recently acquired knowledge in the viral and rickettsial field.

Several new chapters include discussions on the Coxsackie Group; Hemagglutination by Viruses, Interference between Animal Viruses, Diagnosis of Viral and Rickettsial Infections, and Infections of Minor Importance.

Each unit of the book is written by a contributor of authority and includes the diagnosis, prognosis, and current treatment of choice—a well-rounded clinical picture of the various diseases.

THE LITERATURE ON STREPTOMYCIN 1944-1952, Selman A. Waksman, Rutgers University Press, New Brunswick, New Jersey. Publishers, 1952, Price \$5.

The first announcement of the isolation of streptomycin from the culture medium of an actinomyces belonging to the species *Streptomyces griseus* was made in January 1944. Since

then a most extensive literature has accumulated. Nearly twelve hundred papers have been published in numerous journals throughout the world in this brief period of a little over four years. In order to make this literature available to all those interested in streptomycin, all references dealing with the various aspects of this subject have been collected and are available in this volume.

ENDOCRINE TREATMENT IN GENERAL PRACTICE. Edited by Max A. Goldzieher and Joseph W. Goldzieher. Published by Springer Publishing Company, Inc., 44 East 23rd Street, New York 10.

Endocrine treatment as presented in this book is an essential part of every day medical practice. It encompasses all forms of therapy of the endocrinopathies as well as the use of hormones in the treatment of diseases and conditions regardless of the question of an existing endocrine deficiency.

Twenty one clinicians of national reputation have contributed liberally to this volume with the view to meet the needs of the general practitioner.

The diet prescription in Chapter V especially will appeal to the reader and can be obtained also in pamphlet form.

HANDBOOK ON VD, by Carroll T. Bowen, M. D., Chief of the Venereal Disease Department of the Dade County Health Department, Miami, Florida, with a foreword by Philip Wylie, University of Miami Press, Coral Gables, Florida, Price \$1.25.

The convenient size book is written in language that even high school students can understand and appreciate.

The writer has been a crusader before this subject was ever discussed in public and is a local V. D. expert. He recognizes the physician's own professional viewpoint.

Due to this activity, South Florida has one of the best V. D. rates in the country.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

APRIL, 1953

NO. 4

Advances in the Surgical Management of Carcinoma of the Colon

EUGENE M. BRICKER, M. D., F.A.C.S.

St. Louis, Missouri

The contributions of the allied sciences have never more influenced progress in surgery than in the field of colon malignancies. We are now able to prepare a patient for surgery which, in the great majority of instances, can be electively performed under the most favorable circumstances. We can approach a lesion of any part of the large bowel with a firm background of knowledge pertaining to the technical, anatomical and pathological considerations involved, and proceed with a therapeutic procedure based on these considerations. We can draw on improved anesthesia and supportive therapy to decrease the risk of extensive resections and a clearer knowledge of the physiology of recovery to help the patients through the postoperative period.

Progress in Treatment

Progress in the treatment of cancer of the colon has been steady since the first colostomy performed by Littre in 1710. To describe the development of colonic surgery through the periods of exteriorization operations and staged resections would be beyond the scope of this presentation. Suffice it to say that today it is generally accepted that, in the absence of obstruction, a one-stage resection with concomitant restoration of continuity of the bowel is the procedure of choice. In the presence of unrelieved obstruction a preliminary decompression by colostomy or cecostomy is followed by definitive resection and anastomosis. Low lesions

present the problem of sacrifice of the rectum and permanent colostomy, and here, as might be expected, the issue becomes clouded by the fact that various efforts have been expended to preserve the homely function to which we all are sentimentally attached, the efforts being usually at the expense of adequacy of the cancer hospital. Perhaps one of the most important advances of the past couple years has been the crystallization of thought and experience of some surgeons (8, 19, 29) regarding these so-called "sphincter saving" operations. Recent studies have uniformly demonstrated the favorable results following resection for cure of carcinoma of the colon (8, 25, 29). At the same time these studies make evident the fact that approximately 50% of colon malignancies arrive in the hands of the surgeon too late for a chance of cure. Operability rates have been carried about to the limit of practicability, rates of 70% to 80% being common in some of the larger clinics. These rates, however, include palliative resections for far advanced lesions and are further indication that if surgery is to extend the five year survival rate it can only be accomplished by getting more patients to the surgeon in an early stage of the disease. Just what more can be done to promote earlier diagnosis is hard to imagine. The signs and symptoms of colon carcinoma are well known by the profession.

Importance of Routine Examination

The importance of adequate routine examination of patients over fifty years of age has been repeatedly emphasized. It is commonly accepted that at least 66%

Read before the Annual Meeting of the Kentucky State Medical Association, at Louisville, October 7-9, 1952.

From the Department of Surgery, Washington University School of Medicine and Barnes Hospital, St. Louis, Missouri.

of cancers of the colon and rectum can be diagnosed by the examining finger, the anoscope, or the sigmoidoscope. When the use of the latter instrument plus expertly done barium enema becomes more common, the need for palliative colon resections will decline. In view of these well known and publicized facts it is hard to understand why cancer of the colon, and its frequent predecessor the colonic polyp, are not diagnosed early. It is also hard to understand why the necessary equipment for adequate vaginal examination and biopsy are so well supplied in most hospital examining rooms, while the necessary accoutrement for rectal and sigmoidoscopic examination is so elusive. This is especially difficult to comprehend when one considers the 50% frequency of the one orifice as compared to the other. Correction of this deficiency might go a long way toward providing an earlier diagnosis.

Precancerous Lesions

Most surgeons and pathologists agree that adenomatous colonic polyps are dangerous precancerous lesions (18, 16, 9). These lesions, then, provide a remarkable opportunity for early diagnosis and preventive therapy. In expert hands the double contrast barium enema gives a high percentage of positive results, but it must be emphasized that the success of the examination will be in direct proportion to the skill and experience of the examiner. It is still too common to see the patient whose cancer or adenomatous precancerous polyp was missed by a barium enema examination six months or so before the patient is explored and found to have a far advanced carcinoma.

Preoperative Preparation

Partly contributing to the steady decline in the mortality of colon surgery over the years was the recognition that the danger of any type of operation on this organ was directly proportional to the degree of obstruction present. Simple mechanical decompression and evacuation of the colon before surgery is most important and it is amazing the degree to which it can succeed in an obstructed patient when proper dietary measures are used and diligently and carefully repeated enemata are given. To this important principle was added the impetus of the development of intestinal antiseptics in the form of the sulfonamide drugs and

antibiotics. The precipitous fall in the mortality rates of colonic surgery since the development of these drugs must be attributed in a great measure to their action in preventing infection of the anastomosis and in the operative area. Not only do they act favorably in decreasing the bacterial flora within the intestinal tract but they change the consistency of the stool and have a mild laxative effect which is of further help in aiding the mechanical preparation. Poth (21, 22) who had pioneered in this work, has recently been submitting reports on the results of the antibiotic neomycin. It appears that this drug not only has a broad anti-bacterial spectrum but there is much less development of resistance to it. Effective colonic preparation now can be accomplished in three days by combining neomycin and one of the sulfonamides, either sulfasuxidine or sulfathaladine. The undesirable side effects of aureomycin and chloromycetin are less frequently noted when neomycin is used. The regimen recommended by Poth consist of an initial purgation followed by 1 gm. of neomycin and 1.5 gm. of sulfathaladine every four hours. With the preparation an unobstructed patient can be ready for surgery within seventy-two hours. Poth has noted no effect of the intestinal antiseptics on the clotting mechanism and does not give Vitamin K concomitantly unless the patient is found to have a prolonged prothrombin time or increased bleeding tendency, or is unable to take an adequate diet.

It seems wise at this time, when too much reliance may be placed on the effect of the intestinal antiseptics, to re-emphasize the very great importance of the purely mechanical cleansing of the bowel. The colon is capable of compensating for a high degree of obstruction. Usually, with diligent effort, obstruction can be relieved. By resorting to a low residue or liquid diet, repeated enemata, and in properly selected cases careful purgation, most patients can be brought to the operating room with the colon completely deflated and empty of fecal material. The matter of purgation in the patient with an obstructing lesion of the colon is a delicate one and will be determined largely by the careful judgment of the individual surgeon. However, many times I have been able to bring a patient to a satisfactory state of complete preparation for bowel resection after having judiciously used an ounce or two of castor oil

at the proper time, thus avoiding a preliminary decompressing operation.

Technique of Resection

As has been indicated, resection and primary anastomosis represents the most widely practiced technique today. However, staged operations with preliminary colostomy will always play an important role in the management of the obstructed patient who cannot be prepared adequate, and in the management of lesions with perforation and local abscess formation. Some surgeons have been loath to discard the proved safety of the obstructive type of resection developed by Rankin (23), the second stage of which consists merely of a colostomy closure. The development of the obstructive type of resection was an important evolutionary step in colonic surgery and it should remain a part of the surgeon's armamentarium. However, in spite of arguments to the contrary, the obstructive resection does limit the amount of bowel and regional lymph nodes that can be removed. The fact that so many colon carcinomas involve the mid and low sigmoid where exteriorization of the distal colonic segment may be difficult or impossible has limited the applicability of obstructive resections and has been a factor in the adoption of resection and primary anastomosis. The various modifications of staged operations must be kept in mind and should be put to use when indicated. It would be a great mistake to discard the experience of the past and to limit our approach to colon lesions by placing too much reliance upon resection and primary anastomosis. The Rankin clamp for obstructive resection, although used increasingly less in the past few years, will probably never join the Murphy button as a museum item.

Technique of Anastomosis

Regarding the technique of the anastomosis itself, more and more surgeons are adopting the open anastomosis using two rows of fine non-absorbable interrupted suture material and turning in as small a cuff of bowel in the suture line as possible. This technique is particularly applicable to those patients that have been completely prepared mechanically and that have had an adequate period on intestinal antibiotics. It is doubtful that any patient that cannot be so prepared should have a one stage resection and anastomosis. However, there are un-

doubtedly border-line cases which some would choose to manage by resection and anastomosis by a closed or aseptic technique. It is my own opinion that a much more perfect and functional anastomosis can be accomplished by the open technique and I would much prefer to accept contamination at the time of anastomosis to gain an anastomosis perfectly done without a thick cuff of crushed tissues being inverted into the bowel. Subsequent trouble is much more likely to result from crushed devitalized tissue and a leaking suture line from a poorly done anastomosis than it is from the contamination which occurs at the time the anastomosis is done.

Extent of Resection

It has seemed evident to a good many surgeons that the extent of resections for carcinoma of the left colon has been inadequate in the past. This appeared first from purely anatomical considerations but has been reflected in some five year survival rates (1, 12, 24), although a recent study by Ransom (25) fails to show a difference between the two sides. It is technically easier to do a right hemicolectomy than it is to do a partial right colectomy. On the left side the reverse is true. Descending and sigmoid colon resections with a "wedge" of mesentery have too long been in practice. It has recently been advocated (4, 15, 30) that the scope of left colon resections be extended to the point of resection of the inferior mesenteric artery at its origin. This will involve mobilization and removal of the entire left colon, an anastomosis being done between the low sigmoid and the transverse colon. Whether or not this extensive operation is necessary for all left colon malignancies is a matter for debate. However, there is no question about the fact that much of our surgery has been inadequate according to present standards and the stimulus in the direction of extending the limits of resection on this side were needed. The same philosophy has been extended to rectal and low sigmoidal lesions in which palpable metastases are present in the mesentery of the sigmoid colon. Resection of the entire left colon with the abdomino-perineal specimen has been suggested by State (27) with the distal portion of the transverse colon being used for the abdominal colostomy. It has appeared to me that such a procedure might have merit in the patient with palpable lymph

node metastases. It is certainly true that ligation of the superior hemorrhoidal artery is very frequently done at an unnecessarily low level. Dissection in this area should be deliberate and should include at least the origin of the superior hemorrhoidal artery. The difference between this level and the level of the sacral promontory or the aortic bifurcation is enough to account for a sizeable group of lymph nodes. If lymph node metastases are present and palpable in the mesentery a more adequate resection can be done by the procedure described by State. I have been pleased to find on limited experience that there is no appreciable difference in colostomy function when the distal transverse colon is used for the colostomy in this procedure instead of the descending colon or upper portion of the sigmoid colon.

The recent attention that has been paid to the lateral spread of carcinomas of the rectum has brought up for question the adequacy of the lateral dissection in the Miles operation as ordinarily done. The drop in curability rate as one descends from above to below the peritoneal reflection (17, 28, 20) is directly attributable to this lateral spread resulting in local recurrence. A wider resection of the sphincters, the ischio-rectal fat, and the levator-ani muscles has been advocated by Dixon (10) and others. Miles himself recognized the importance of this lateral spread and of an adequate lateral dissection in the original description of his operation. The development of local recurrence after abdomino-perineal resection of the rectum has been used as an argument justifying sphincter-saving operations on the grounds that for lesions far enough above the level of attachment of the levators to the rectum, the latter procedure is just as radical as the former. It would seem more logical to take the appearance of local recurrence as indicating that the abdomino-perineal resection has been performed in an inadequate lateral plane, as is indeed very frequently the case.

Anterior Resection and "Sphincter Saving" Procedures

The great furor of the recent years regarding the extension of anterior resection and anastomosis to low sigmoidal and rectal lesions and the development of the various types of sphincter saving procedures is only now reaching a stage where definite conclusions can be drawn. The

demonstration many years ago by David and Gilchrist (13) and others that the lymphatic spread from carcinoma of the rectum and low sigmoid is predominately upward, has served to promote the argument that many of these lesions can be resected with a scant inferior margin and rectal function can be preserved. It is only since the rate of local recurrence in such patients can be appreciated (14) and since the role of the lateral spread has been re-emphasized that rational objections to these restricted types of operations are becoming effective. Regarding the operation of anterior resection and anastomosis there is no doubt that it can be extended to low lying sigmoidal lesions which previously have been resected by the abdomino-perineal technique. Whether or not this type of resection should be extended to lesions lying at or below the peritoneal reflection is a matter for debate. The majority of surgeons who are more interested in curing a patient than in preserving rectal function or in favor of the abdomino-perineal resection for lesions at this level. I personally have adopted Dunphy's (11) evaluation of the problem and restrict anterior resection to those lesions below which a ten centimeter margin of bowel can be obtained, which do not have palpable lymph node metastases and which are freely movable within the pelvic fascia. A lesion lying so low that an adequate inferior margin cannot be obtained and one associated with metastases which may have blocked the superior spread and promoted a retrograde and lateral spread should be resected by abdomino-perineal technique. The preservation of rectal function is something that we would all like to accomplish but it should not cause us to sacrifice a chance for cure.

The various so-called "pull through" operations aimed at preserving sphincter function with complete extirpation of the ampulla of the rectum and anastomosis of the colon to the anal mucosa are the subjects of violent debate. Lesions lying too low for an adequate anterior resection and anastomosis lie in an area at the level of the peritoneal reflection or lower where the factor of lateral spread takes added importance. The reasoning that has resulted in the desperate attempts to preserve rectal function for these lesions is based chiefly on two points: (1) local recurrences appear in the pelvis, even after the abdom-

ino-perineal resections, and, (2) the lymph drainage is predominately in an upward direction until the lesion reaches the level of attachment of the levator muscle at which point lateral spread becomes an appreciably important factor. It is difficult to comprehend why the first point should be seized upon as an argument in favor of what is actually a less radical resection. Should it not logically be used as an argument for more attention to a wider dissection of the deep pelvis as part of an abdomino-perineal resection? The second point has become so involved in anatomical, philosophical and pathological arguments involving centimeters and half centimeters that the ordinary surgeon, interested more in curing cancer than in surgical acrobatics, is inclined to wonder if it is all really worthwhile. There is further reason to wonder, when it is realized that the degree of continence provided by the majority of these operations is not all that might be desired. Why should it be so difficult to choose between what must be considered as a limited operation plus a questionably functioning rectum on the one hand, and an adequate operation and a normally functioning abdominal colostomy on the other? As one surveys the literature, how many surgeons primarily interested in curing cancer have given their stamp of approval to sphincter-saving operations for lesions below the peritoneal reflection?

Massive Resections of Pelvic Viscera

The recent development of pelvic evisceration described by Brunschwig (6) and first done for carcinoma of the rectum by Appleby (3) has added another small facet to our surgical approach to rectal and low sigmoidal lesions. Not infrequently, particularly in males, these lesions become attached to and invade contiguous viscera making it impossible to remove them and leave the patient with bladder function. In these occasional cases control of the lesion may be possible by removal of all the pelvic viscera and transplantation of the ureters. The procedure falls into the category of mutilations that one hesitates to do and it is very necessary that such operations be attempted only after a careful selection of patients and with facilities that are adequate. There is no question that a few patients can be salvaged to lead happy and useful lives by this type of surgery (5).

Polyps of The Colon

The investigation of patients who complain of rectal bleeding and the early recognition of rectal and colonic polyps represents one of the most important phases of the colon cancer problem today. The extension of limits of operation, total left colectomy, pelvic evisceration, perfection of patient preparation and perfection of technique of operation, all of these important aspects of colonic surgery have been developed and exploited. It would appear that the situation can only be improved further through early recognition and treatment of polyps before they undergo malignant change or while the malignancy is still limited. Polyps of the abdominal colon should be removed. If the demonstrable polyps are limited to a segment of the colon, as is sometimes the case, segmental colonic resections may be adequate. Such patients should be very carefully followed subsequently and watched for the development of polyps in the remaining colon. Single polyps of the abdominal colon can be removed by simple colotomy and removal of the polyp and its base, or by removal of a segment of the bowel. Careful gross and microscopic examination of the polyp and its stalk and base should be done immediately. If a diagnosis of carcinoma results the usual radical operation for carcinoma should be done. Polyps of the rectum and low sigmoid lend themselves to removal either by excision through the rectum if the polyp can be pulled down and properly exposed, or by excision and fulguration through a sigmoidoscope. The problem of what to do about the totally extirpated rectal polyp which on microscopic sections leads to a diagnosis of carcinoma is one that cannot be answered dogmatically. Each case will have to be handled on its individual merits with all factors taken into consideration. The surgeon takes some degree of chance regardless of which course he follows. If he reoperates and does an abdomino-perineal resection he risks the mortality involved and he risks having performed a radical operation on a patient who in reality might have no residual cancer. On the other hand if he decides to watch the patient and do nothing further he risks the danger of allowing local recurrence or metastasis to jeopardize the chance of cure by later radical surgery. The sacrifice of rectal function is of little concern when definite invasive carcinoma is present. However, the sac-

rifice of rectal function becomes of great concern when it is considered that it may not be necessary for the cure of the individual patient. Sandusky (26) has presented this problem well and the discussion by Lahey and Collier indicates the feeling of uncertainty experienced by all surgeons facing this dilemma. My own policy has been to gamble on the side of conservatism if careful examination of the excised polyp shows no invasion of the base of the stalk and if I feel that the polyp has been completely extirpated. One can feel some assurance in this matter when dealing with pedunculated polyps. However, sessile polyps which lead to a diagnosis of carcinoma should be reoperated radically.

Regarding multiple polyposis and familial polyposis the only vexing problem that exists is whether or not the rectal segment should be sacrificed. The consensus of opinion now appears to lie in favor of total abdominal colectomy with preservation of the rectum providing it can be completely cleared of all polyps. Some surgeons will go to remarkable lengths by fulgurating hundreds of polyps in the rectal segment in order to preserve rectal function. My own feeling is that if the rectal polyps are extremely numerous, it is better to sacrifice the rectum. On the other hand, if the polyps are discreet and surrounded by normal appearing mucosa one is justified in preserving the rectal segment. It is very important to make the rectal segment short in order that its entire extent can be very easily and perfectly visualized. Patients with a retained rectal segment should be very carefully followed for the remainder of their lives. The criteria proposed by Anschuetz (2) regarding retaining the rectal segment seem reasonable: (1) there must be no carcinoma in the rectum at the time of inception of treatment; (2) the rectal segment remaining after surgery must be amenable to complete visualization with a proctoscope; (3) the segment must be completely cleared of polyps; and (4) complete examination of the rectal segment with biopsy and destruction of new polyps (if any) must be performed every

three months for the remainder of the patient's life.

Implantation Recurrence

Recent reports by Cole (7) and Goligher and Dukes (14) and experiences of others make it seem possible that viable colon cancer may be implanted from within the lumen of bowel onto the raw surfaces at the suture line and here grow as a recurrence. It is impossible to predict the frequency with which this complication may be expected but apparently it is much more frequent than has been recognized previously. The increased frequency with which resection and primary anastomosis is being done and the extension of this procedure to lower sigmoidal lesions will probably result in an increased number of recurrences from this cause being apparent in the future. Cole considers the possibility great enough to justify the use of special measures to prevent it. Before doing an anastomosis he carefully irrigates the distal segment of bowel in order to wash out all viable cancer cells that may be within its lumen.

Conclusion

If the curability rate of colon carcinoma is to be further improved it will have to be through earlier diagnosis. Routine barium enema and sigmoidoscopic examinations on all patients over fifty years of age who present themselves to a physician would go a long way toward providing earlier diagnosis and would provide a wonderful opportunity for the practice of prophylactic therapy through eradication of colonic polyps.

Recent trends in extension and standardization of surgery of the left colon seem justifiable on pathological and anatomical grounds. There is considerable doubt that trends aimed at preservation of rectal function by limiting the surgery of rectal carcinoma can be similarly justified. Reports of recurrence following "sphincter-saving" operations are adding to this doubt.

Due to publication policy limiting the length of bibliographies, the references for this article could not be listed here. A copy of them may be obtained on request from the Journal Office.

Public Health Policies

BRUCE UNDERWOOD, M. D.

Secretary and General Manager of the Kentucky State Medical Association and
Kentucky State Commissioner of Health

Louisville

I appreciate the privilege and the honor of addressing you this morning. I have chosen to discuss with you my views concerning the more important Public Health Policies which are in effect in Kentucky. I shall deal especially with those policies which are closely related to the private practice of medicine. Since one of the positions I hold is Commissioner of Health for the State of Kentucky, you have a right to know what I believe on this subject, and I shall speak honestly and frankly.

Health and Medical Care Differentiated

The difference between health and medical care should be distinguished. Medical care is a purchasable commodity which is rendered by highly trained professional persons. The medical profession has the responsibility for providing medical care. Health on the other hand is the responsibility of the individual. The health of the community is the responsibility of the community. In addition to the responsibility for providing medical care the medical profession has the responsibility for providing the leadership that is needed in the field of health. The medical profession in Kentucky has never failed as a profession to meet this responsibility. In 1872 Dr. John D. Jackson of Danville delivered an address before the Kentucky State Medical Association urging the establishment of a State Board of Health and the appointment of a county health officer in every county. He said on that occasion "to the honor of our noble calling be it said, physicians have ever been found to be the most active aiders and abettors and generally the prime suggestors and originators of every measure tending to prevent the propagation and spread of disease and to ameliorate the physical surroundings of the dwellers of town and country. Since this unselfishness has been such a constant characteristic of the true man of medicine the public has come to look to us not only for

counsel and help but as the rightful leaders in all matters of sanitary reform."

Relation of Health and Medical Care

Health and medical care are different but they are closely related and they should be coordinated. Dr. P. E. Blackerby said in an address before this Association in 1942 that "In the development of medical organization in Kentucky and the evolution of the practice of medicine, together with the related public health service, there have been an integration and a coordination probably unequaled in any other state." Whatever is best for the people in the field of health and medical care is also best for the private practice of medicine. Health departments and private physicians have a responsibility to the people they serve. Only through close coordination of all the services in the field of health and medical care can the people receive the best possible service.

Value of Cooperation Between Private and Public Health Physicians

There should be full cooperation and understanding between private and public health physicians. Public health physicians should cooperate and deal fairly with private physicians. Likewise private physicians should cooperate and deal fairly with public health physicians. Both are members of the same profession. Public health physicians are physicians who have specialized in preventive medicine and public health. They are members of the medical profession and should be given the same consideration in organized medicine that is afforded other specialty groups. The public is quick to sense differences of opinion. It is imperative that physicians iron out their differences in private and agree upon a stand which all can support so that a united front of service may be presented to the public. When private and public health physicians openly disagree and fight each other, they both suffer, and even worse, the people they serve are made to suffer by receiving less efficient service than would other-

wise be the case. Article 4, section 4 of the principles of ethics of the American Medical Association states that when one physician disparages the work of another physician by comment or insinuation, "such comment or insinuation tends to lower the confidence of the patient in the medical profession and so reacts against the patient, the profession and the critic." Most differences come about because of a lack of understanding or a fear of the unknown. I think it is quite significant that when private physicians become actively interested in the work of a health department they become sympathetic with it. In fact most of the private physicians I know who have actively assisted a health department to any degree have become enthusiastic and often wanted to exceed what I believe should be the limits for public health work.

Function of Local Health Departments

Every community should be served by a good, full time local health department. The local health department is the channel through which community health services flow to the people of the community. Without a good local health department the people do not have access to the many services that are and should be available from federal and state agencies. Without a good local health department the health of the community as a whole is usually much neglected. There are many services in the field of health and medical care which the community needs and which the private practice of medicine by its very nature is unable to supply. If the primary benefit of these services is for the community rather than the individual they are a proper function of government and should be available to the people through local health departments. Private physicians have an obligation to be interested in and to support the work of public health departments.

Government and Private Enterprise

Government should not do anything which can be accomplished by private enterprise. Health departments are a part of government and as such they should not do anything except that which is a proper function of government. Public health physicians should practice curative medicine only when such practice is done primarily for the benefit of the community as a whole rather than for the individual and provided the patient is un-

able to pay a private physician for the service. The treatment of persons infected with a venereal disease is an example. Treatment is the best method for controlling the spread of venereal diseases. The health department should treat medically indigent cases of venereal disease because the primary benefit is to the community rather than the individual. The health department should not treat those cases who are able to pay a private physician, but should follow up the cases to see that they do receive treatment and thus prevent the spread of their disease to others in the community. The practice of curative medicine where the primary benefit is for the individual is entirely a different matter. Public health physicians should not practice curative medicine under these circumstances regardless of the indigency of the patient. Neither should public health nurses give injections of insulin, liver, estrogenic substances or give any other injection or treatment where the individual receives the primary benefit. On the other hand, in the practice of preventive medicine the financial status of the patient is the only deciding factor. Persons who are able to pay should receive treatment from private physicians while medically indigent persons should go to the health department. When private and public health physicians work and plan together in a spirit of fair play everyone benefits. If they fail to do this for any reason everyone suffers to the extent that differences and misunderstandings are permitted to interfere with the objectives of each.

Responsibilities of Local Health Departments

Final decisions in the field of health and medical care should not be made in Washington, in Frankfort or in Louisville except insofar as is necessary to guide, stimulate and assist local communities in solving their local health and medical care problems. In the case of local health departments, the State and Federal Agencies can and should coordinate the work, but the final decision on each local problem should be made locally wherever this can reasonably be done. Each local community, through its local board of health, employs its own health department personnel, and, for cause, can discharge them. The community through the local board of health and the local health department not only has the machinery but it also has

the responsibility for planning and carrying out programs for solving local health problems. Under such circumstances only apathy, cynicism and indifference in the community can cause the principle of home rule to fail.

Value of Health Education

The public must understand the services that are available if the people are to use them to the best interest of all concerned. The private physician, the public health physician, the private nurse, the public health nurse and in fact all personnel engaged in any field of health and medical care should teach good health practices during the course of every service they render to the public. Private physicians and public health personnel can cooperate in the field of health education with great benefit to all. Public health personnel can better discharge their obligations to the people of the community. Private physicians will be able to treat

more patients and to treat them in a more effective manner. The people will benefit by receiving a higher quality of service than would otherwise be possible. Health education is basic both to good health and good medical care.

Conclusion

Kentucky's Greatest Resource is her people. The first sentence in the principles of Ethics of the American Medical Association reads as follows, "The prime object of the medical profession is to render service to humanity; reward or financial gain is a subordinate consideration." I am firmly convinced that health departments and private physicians should not be in competition with each other but rather that each should supplement the work of the other. Both groups exist to serve the people and whatever is best for the people is also the best for both groups. After all it's the people who count.

Obstetrical Anesthesia in General Practice

WARREN F. SERGENT, M. D.

Lexington

This discussion is not intended to cover the field of anesthesia for obstetrics, but to present a suitable method for the relief of pain during childbirth in the home where facilities are most limited.

The effort to provide pain relief during labor and delivery outside of larger institutions has not been satisfactory. The patient usually receives nothing during labor and most often, open drop ether or chloroform for actual delivery of the child.

Perhaps we can borrow a method born in England during austerity. Since childbirth in Britain is most often in the home, they have devoted more time to develop more satisfactory analgesia with far more simple methods.

Use of Trichlorethylene

Hewer¹ established the use of Trichlorethylene in 1941 in England and its employment rapidly progressed. It has been administered more than a million² times and one author³ reports 40,000 administrations without serious difficulties.

The peculiar properties of the drug stimulated development of apparatus simple in construction and ease of administration to provide their women, including the queen, with pain relief during childbirth. Gradually, interest grew in the United States and resulted in market production of Trichlorethylene and suitable inhalers after intensive study at several large institutions.

Various Methods of Anesthesia

There are many methods by which analgesia and anesthesia can be produced in the obstetrical patient.

1. Inhalation
2. Local
3. Spinal and Caudal
4. Intravenous
5. Rectal

However, without equipment and patient supervision, the practitioner is limited to inhalation and local techniques.

Drugs for Inhalation Usage

These drugs are available for inhalation usage.

1. Ether

Read before the Annual Meeting of the Kentucky State Medical Association at Louisville, October 7-9, 1952.

2. Chloroform
3. Cyclopropane
4. Ethylene
5. Nitrous Oxide
6. Trichlorethylene

All except ether, chloroform and trichlorethylene require much equipment and especially trained individuals for administration.

Ether and chloroform are suitable only for the actual delivery of the child and are satisfactory when used where their dangers and limitations are recognized.

Trichlorethylene

Trichlorethylene, however, is satisfactory for use during the painful portion of labor as well as actual delivery of the child. Trichlorethylene is now available in this country under several trade names. It is a clear colorless liquid, has a high boiling point, a chloroform-like odor and has the following properties that make it a most suitable drug for use in home deliveries.

1. Non-inflammable and non-explosive. The cigarette, fireplace and lamplight are no longer danger sources for explosions and fires.

2. Trichlorethylene produces pain relief to a surprising extent and yet one has the cooperation of the patient, consciousness need not be lost, restlessness and delirium seen with other drugs is minimal.

3. Trichlorethylene can be administered for hours during uterine contractions without disturbing body chemistry, liver and kidney function.

4. Trichlorethylene has little effect on uterine activity.

5. Trichlorethylene vapor is not irritating to the respiratory passages and therefore excessive salivary secretions are not a problem.

6. The liquid is not expensive and can be carried easily in the doctor's bag.

7. The vapor can be self administered very simply with success by the patient herself.

An agent with so many excellent properties must have some undesirable characteristics.

1. Trichlorethylene will not produce deep anesthesia with muscular relaxation, this however is rarely necessary in home deliveries.

2. It cannot be used in the anesthesia machine with soda lime, however there are inhalers designed for its administration.

3. Prolonged exposure of the liquid to light and air results in toxic products, so it must be stored with the stopper tight, and out of sunlight.

4. If administered in excess concentrations it produces bradycardia, cardiac irregularity and rapid shallow respiration, these concentrations are toxic and above those necessary for our use.

5. It cannot be given by open drop methods.

6. Adrenalin must not be injected during its administration.

Trichlorethylene is being safely administered by the patient herself by means of inhalers especially designed for this purpose. Both British and American manufacturers have developed types which are safe and simple in construction, easy to operate and relatively inexpensive.

Description of Inhaler

This is a cross section of one type of inhaler⁴ shown only to illustrate its simplicity and working principle. An ounce of trichlorethylene is poured into the designated opening where it moistens a wick. Due to the high boiling point, vapor concentration is low, and the amount inhaled from the mask can be controlled by the amount of air drawn over the surface of the wick.

There is a non-breathing valve, no bag reservoir, so each breath of vapor inhaled from the mask remains about the same percentage, a concentration which is non-toxic and below amounts which produce symptoms of overdosage. This inhaler is designed specifically for self administration of trichlorethylene.

Now that the drug has been provided whose properties make it particularly valuable for obstetrics in the home, and an inhaler by which the patient can administer it safely, its use in a home delivery may be described.

The patient should receive prenatal instruction in the office how to fit the inhaler on the face and when to use it in relation to uterine contractions, and during actual delivery. She should be told it will not abolish all sensation, but does remove the pain from contractions. She must be assured that the drug and inhaler are safe, and allowed to breathe the vapor from the inhaler in the office to remove any fears she may have of the procedure.

Many authors⁵ advise giving an analgesic drug such as demerol when the patient be-

comes uncomfortable, is definitely in labor and particularly if it is expected to be long. When the analgesic is no longer adequate, then self administration of trichlorethylene is begun. Scopolamine should not be combined with demerol where self administration of trichlorethylene is desired, as the patients become too uncooperative to use the inhaler properly.

Self Administration

Trichlorethylene, self administered, is begun when uterine contractions become definitely painful. The patient is aware of a contraction gathering before she feels pain. It is during this period she rapidly inhales four to six breaths of vapor from the inhaler and then continues to breathe normally from the inhaler until she feels the contraction disappearing. If the concentration of vapor from the inhaler does not produce adequate analgesia, then it may be adjusted to produce a higher concentration. Should the patient breathe the vapor too long and fall asleep, her hand and the inhaler fall from her face and she rapidly awakens. The concentration delivered from the inhaler is constant and overdose with self administration would be extremely difficult. The patient may continue this method of producing pain relief with contractions for many hours with safety.

During actual delivery, the patient continues to breathe the trichlorethylene vapor from the inhaler, holding the inhaler herself, if she falls asleep the hand and the inhaler fall from her face, as the effects of the drug wear off and she begins to feel discomfort, she again fits it to her face and resumes inhalation. In many cases, this is adequate for episiotomy, perineal repair and repair of lacerations. Local infiltration of the pudental nerves or of the operative site may be carried out if the trichlorethylene is not adequate.

Summary

It is the author's opinion that self administration of trichlorethylene is a safe, efficient method of producing adequate, and before unknown, pain relief for the patient during labor and delivery in the home and smaller institutions where facilities are most limited.

REFERENCES

1. Hewer, C. L.: Trichlorethylene, an Inhalation Anesthetic. *Brit. M. J.*, 1: 924 (June 21, 1941).
2. Stephen, C. R., and Slater, H. M.: Newer Anesthetic Agents in Children, with Special Reference to Trichlorethylene and Kemithal. *Anesthesiology*, 12: 135 (Mar.) 1951.
3. Ostlere, G.: Role of Trichlorethylene in General Anesthesia. *Brit. M. J.*, 1: 195 (Jan. 31,) 1948.
4. K. L. Pickrell, M. D., C. R. Stephen, M. D., T. R. Broadbent, M. D., F. W. Masters, M. D., and N. G. Georgiade, D. D. S., M. D. Self-induced "Trilene" Analgesia in Plastic Surgery, with Special Reference to the Burned Patient. *Plastic and Reconstructive Surgery* Vol. 9, No. 4, April 4, 1952.
5. Personal Communication: Dr. Roger-Bryce Smith.

Mitral Stenosis—Its Surgical Correction

W. BURFORD DAVIS, M. D.

J. RAY BRYANT, M. D.

JOHN S. HARTER, M. D.

Louisville

The unhappy dilemma of general practitioners, internists and cardiologists treating patients with mitral stenosis is familiar to all of us. In 1941 Wolfe and Levine¹ reported a mortality rate of 66% within three years in patients with mitral stenosis experiencing serious hemoptysis. Levine² has elsewhere stated the average time between the onset of signs of congestive failure and death in mitral stenosis is 4 and 3/5 years. Harken³ followed a group of 19 patients who were selected for mitral valvuloplasty but refused operation. Seventeen of the 19 patients

died within one year and 15 of the 17 were dead within six months.

The need for surgical correction of mitral stenosis has long been recognized. In 1923 Cutler and Levine⁴ reported a case of valvulotomy with recovery. Evarts Graham⁵ and Claude Beck with Cutler⁶ also reported their experiences with mitral valve surgery in the 1920's. The several operations done at this time consisted of incision of a mitral valve leaflet or resection of a portion of a cusp. These procedures were soon abandoned because of the high mortality rate and the extreme degree of regurgitation present in the patients who survived operation, thus merely exchanging one circulatory hazard for

From the Department of Surgery, Section of Thoracic Surgery, University of Louisville, School of Medicine.

Read before the Annual Meeting of the Kentucky State Medical Association at Louisville October 7-9, 1952.

an equally great one.

In June of 1948 Smithy⁷ reported five living patients whose mitral stenosis had been treated by resecting small wedges from the stenotic mitral leaflets. In November of 1948 Harken⁸ reported his first successful case of mitral valvuloplasty in which he removed wedges from the commissures. In June of 1948 Bailey⁹ successfully did his first division of a mitral valve in its commissure.

Methods of correcting the pulmonary hypertension caused by mitral stenosis other than the direct surgical attack on the valve are:

(1) Reservoir shunt operation, usually done by anastomosing the azygos vein to a pulmonary vein¹⁰.

(2) Cardiac denervation⁸.

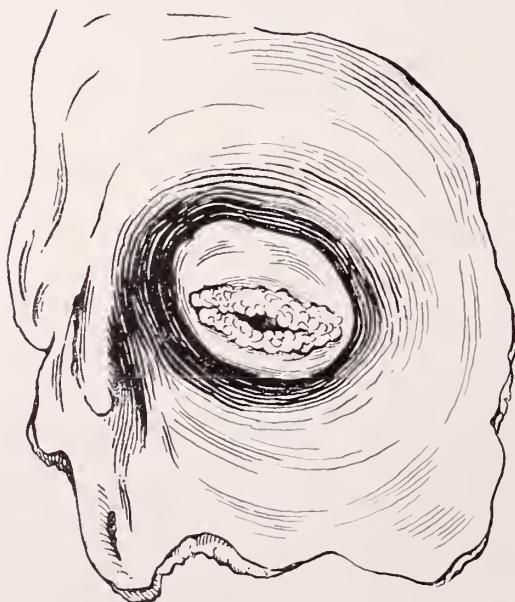
(3) The creation of interauricular septal defects⁸.

Although these methods have been beneficial in some cases they are far inferior to a good valvuloplasty.

Pathology of Mitral Stenosis

In about 80% of the cases of mitral stenosis the leaflets are fused together in their commissures and there may or may

FIGURE 1



A typical stenotic mitral valve as viewed by looking into the opened left auricle. Calcific deposits form a rigid margin of the orifice. In the angles of the valve the cusps have been firmly fused together forming the typical commissures.

FIGURE 2



A section through the left ventricle and mitral valve showing the stenotic mitral valve forming a funnel directed medially toward the aortic valve. A division of this type of valve results in a moderate to large amount of regurgitation.

not be calcium deposits in the rigid areas. (Fig. 1.) The commissures or angles in the opening of the valve may be compared with the angles of the mouth where there is severe scarring. In between 10 and 15% of the cases a uniform fusion presents an elastic funnel formation with extension of the process into the cardae tendineae³. The degree of regurgitation depends to a considerable extent on the direction of the funnel. Naturally, there is more regurgitation if the funnel is directed medially toward the aortic valve (Fig. 2) than if it is directed laterally toward the thick ventricle wall. (Fig. 3). When the funnel is directed laterally the thick ventricle wall blocks the orifice of the valve in ventricular systole thus preventing regurgitation back into the left auricle.

Selection of Patients for Operation

The most difficult problem of the surgeon doing mitral valve surgery is the careful evaluation and selection of pa-

FIGURE 3



Section through the left ventricle showing a stenotic mitral forming a funnel which is directed laterally. When the lateral commissure of this valve is divided very little regurgitation occurs. When the ventricle contracts the thick ventricle wall blocks the opening of the valve in systole. Results from mitral valvuloplasty on this type of valve are generally extremely good.

tients for operation. The following are the criteria for selecting patients for mitral valvuloplasty.

(1) Mitral stenosis causing progressive symptoms.

(2) Freedom from current or recent rheumatic infection or bacterial endocarditis.

(3) Freedom from other major valvular lesions.

(4) Control of decompensation by strict medical regime.

(5) Pulmonary hypertension must not be sufficiently long standing to cause irreversible sclerotic changes in the pulmonary bed.

(6) Absence of left ventricular strain.

(7) Absence of a major or predominating degree of mitral insufficiency.

Probably the most major consideration in evaluating a patient for mitral valvuloplasty is that of determining the presence or degree of mitral insufficiency. Regardless of how carefully the patient has been worked-up the surgeon frequently finds considerably more, or less, mitral regurgitation than was anticipated before he introduced his finger into the left auricle. The final decision, as to whether a valvuloplasty should be done and, if so what type, can not be made until the cusps of the mitral valve are palpated and the currents of blood are carefully noted.

Operative Technic

A slow drip (30 to 35 drops per minute) of 0.1% procaine in 5% glucose is started a half hour before the induction of anesthesia. Endotracheal ether and oxygen is the anesthetic of choice.

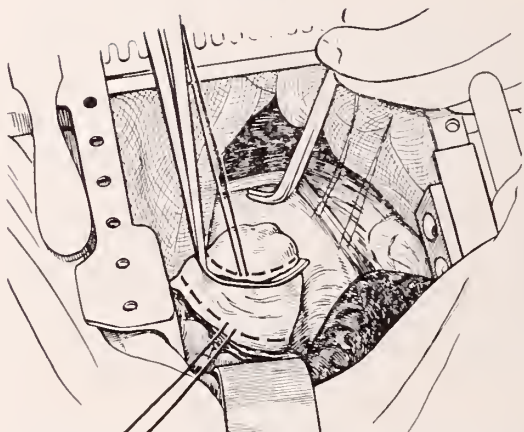
A left posterolateral or anterolateral approach may be used. After entering the chest several cubic milliliters of 2 or 4% procaine is instilled into the pericardial sac. After several minutes an adequate (8 to 10 centimeters) incision is made in the pericardium parallel to the phrenic nerve.

The auricular appendage is examined for evidence of thrombosis. If no thrombosis is present the base of the appendage is infiltrated with procaine. The left auricle should be gently palpated as marked mitral insufficiency which would preclude the advisability of proceeding with the operation may be appreciated. Also the regions of the aortic and tricuspid valves should be palpated for evidence of major lesions that would make mitral valvuloplasty inadvisable.

The auricular appendage is grasped with a non-crushing clamp or a Harken auricular appendage clamp. A purse string suture is placed about the base of the appendage. A second purse string is placed about the appendage distal to the clamp. (Fig. 4.) After checking to see that the clamp is completely across the appendage, the tip of the appendage is amputated. As the clamp is removed from the appendage the right index finger is inserted into the auricle. The first assistant tightens the distal purse string suture to control loss of blood.

With the finger in the auricle the presence or the degree of regurgitation should be evaluated. The mitral cusps are then palpated. (Fig. 1). If stenosis is present and

FIGURE 4



The pericardium has been opened. A non-crushing clamp (Satinski vena cava clamp) is holding the auricular appendage of the left auricle. A purse string suture has been placed about the base of the appendage and a second purse string is placed distally on the appendage. When a finger is in the heart the first assistant ties down the distal suture.

there is little or no insufficiency an attempt should be made to fracture the valve in its lateral commissure. If the valve does not fracture easily the finger should be withdrawn. The tip of the right index finger is cut off of a glove and a slit is made across the base of the glove finger on the volar surface. The second glove is then put on the right hand. After slipping the valvulotome through the finger of the outer glove, the finger and valvulotome are inserted into the auricle. The type of valvulotome used is determined by the position of the valve. (Fig. 5) The lateral commissure is then engaged and sharply divided by the valvulotome. (Fig. 6) If a single incision increases the opening in the valve to a total of one and a half or two finger breadths no further division need be carried out provided the valve has been opened into its pliable periphery. If the valve cusps remain rigid or the opening is not sufficiently large additional division of the commissure is carried out. If a sufficient opening can be made by dividing the lateral commissure an attempt to divide the medial commissure is not made. Division of the medial commissure frequently results in regurgitation. This is especially true when the stenotic funnel of the valve is directed medially. (Fig 2)

As the finger and valvulotome are withdrawn from the auricle the distal purse

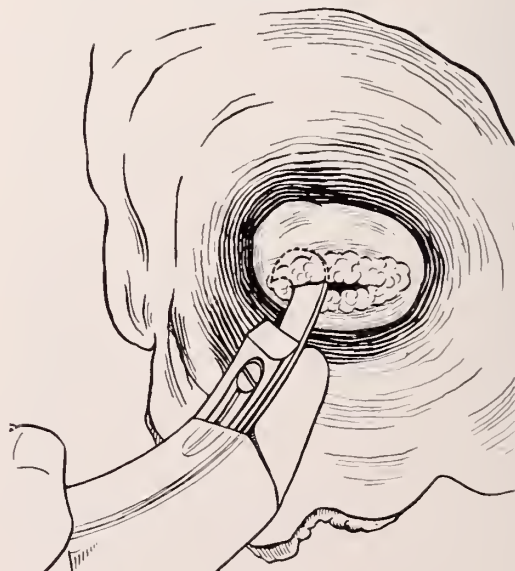
string suture on the auricle is tied tightly. Then the surgeon is free to carefully tie the purse string about the base of the appendage. The appendage is then amputated and its stump over sewn with a continuous silk suture. The pericardial sac is thoroughly irrigated and the opening in the pericardium loosely approximated with two or three interrupted su-

FIGURE 5



The types of valvulotomes we prefer. The position of the valve angles determine the type of valvulotome that is best suited for the particular case. At the left is the broad knife type (Harken). The other three are small left and right valvulotomes and a larger valvulotome (Bailey).

FIGURE 6



The lateral commissure of a stenotic valve is engaged with a Bailey valvulotome. The valve may be divided by screwing down the guillotine blade.

tures. A thoracotomy drainage tube is inserted into the pleural space and the chest closed.

Brief Summary of Cases

We have done mitral valvuloplasties on ten patients without a mortality. We do not intend to suggest that there is no mortality rate from this very major surgical procedure. In a recent report Glover and associates reported a mortality rate of 11% in 164 cases of mitral valvulotomy¹¹. In other series the mortality rate is higher. Our ten cases without a mortality make us feel the mortality rate from this operation will be reasonably low in carefully selected and well handled cases. Naturally, we are pleased to have had no mortalities, especially as at least two of our cases were very poor risk patients.

The average age of this group of patients was 33.3 years; the oldest being 45 and the youngest 25. Progressive symptoms had been present for an average of 4.3 years before operation (Table 1) All patients were dyspneic on exertion and three were dyspneic at rest. Seven of the patients gave a history of hemoptysis and five had definite attacks of pulmonary edema. Eight had experienced at least one bout of decompensation. Five complained of intermittent precordial pain. Eight of the patients were either seen with or gave a conclusive history of bouts of auricular fibrillation.

Results have been excellent in three cases, good in two, and fair in two. (Table 2) The remaining three patients have been operated upon too recently to evaluate the results. Patients continue to improve for as long as six to twelve months. In the three recent patients one is expected to have an excellent result, one good, and one fair. One patient with an excellent result was unable to walk more than a half block without having to sit and rest. Recently he played seven innings of baseball without any dyspnea. Another patient with an excellent result was bedridden for nine months and now does full time domestic work including the care of two small children and cleans a doctor's offices in addition. One patient with a good result recently cleaned five acres of rough land without difficulty. He estimates he is 90% improved. However, he does have some mitral insufficiency. One patient with a fair result was operated upon primarily because she had three cerebral emboli from her thrombosed left

auricular appendage. A small incision was made in the lateral commissure although she had considerable mitral insufficiency as well as mitral stenosis.

Discussion

We all ask the question "Does the stenosis recur?" We would not expect this to occur for several reasons. First, the

TABLE I
SUMMARY OF SYMPTOMS

Dyspnea	10
Hemoptysis	7
Decompensation	8
Auricular Fibrillation	8
Pulmonary Edema	5
Precordial Pain	5
Average Duration of Progressive Symptoms	4.3 yrs.

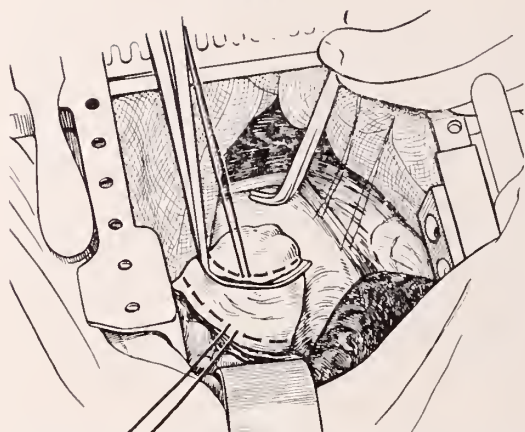
Predominant* symptoms presented by ten patients who have had mitral valvuloplasties.

TABLE II
RESULTS

Excellent	3
Good	2
Fair	2
Too Early for Evaluation	3

Of the three patients whose operations are too recent to evaluate one patient is expected to get an excellent result, one good, and one a fair result.

FIGURE 4



The pericardium has been opened. A non-crushing clamp (Satinski vena cava clamp) is holding the auricular appendage of the left auricle. A purse string suture has been placed about the base of the appendage and a second purse string is placed distally on the appendage. When a finger is in the heart the first assistant ties down the distal suture.

there is little or no insufficiency an attempt should be made to fracture the valve in its lateral commissure. If the valve does not fracture easily the finger should be withdrawn. The tip of the right index finger is cut off of a glove and a slit is made across the base of the glove finger on the volar surface. The second glove is then put on the right hand. After slipping the valvulotome through the finger of the outer glove, the finger and valvulotome are inserted into the auricle. The type of valvulotome used is determined by the position of the valve. (Fig. 5) The lateral commissure is then engaged and sharply divided by the valvulotome. (Fig. 6) If a single incision increases the opening in the valve to a total of one and a half or two finger breadths no further division need be carried out provided the valve has been opened into its pliable periphery. If the valve cusps remain rigid or the opening is not sufficiently large additional division of the commissure is carried out. If a sufficient opening can be made by dividing the lateral commissure an attempt to divide the medial commissure is not made. Division of the medial commissure frequently results in regurgitation. This is especially true when the stenotic funnel of the valve is directed medially. (Fig 2)

As the finger and valvulotome are withdrawn from the auricle the distal purse

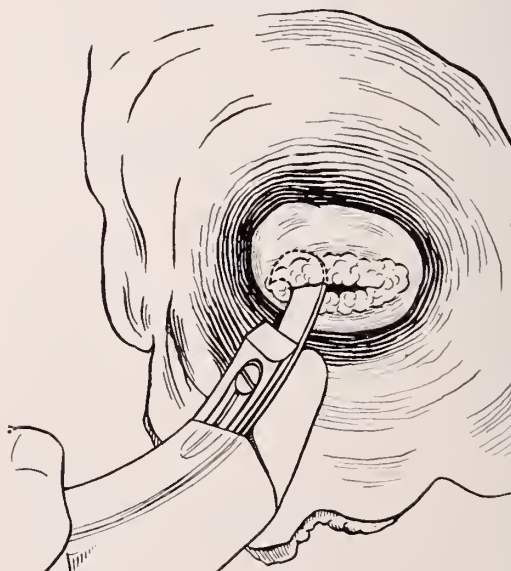
string suture on the auricle is tied tightly. Then the surgeon is free to carefully tie the purse string about the base of the appendage. The appendage is then amputated and its stump over sewn with a continuous silk suture. The pericardial sac is thoroughly irrigated and the opening in the pericardium loosely approximated with two or three interrupted su-

FIGURE 5



The types of valvulotomes we prefer. The position of the valve angles determine the type of valvulotome that is best suited for the particular case. At the left is the broad knife type (Harken). The other three are small left and right valvulotomes and a larger valvulotome (Bailey).

FIGURE 6



The lateral commissure of a stenotic valve is engaged with a Bailey valvulotome. The valve may be divided by screwing down the guillotine blade.

tures. A thoracotomy drainage tube is inserted into the pleural space and the chest closed.

Brief Summary of Cases

We have done mitral valvuloplasties on ten patients without a mortality. We do not intend to suggest that there is no mortality rate from this very major surgical procedure. In a recent report Glover and associates reported a mortality rate of 11% in 164 cases of mitral valvulotomy¹¹. In other series the mortality rate is higher. Our ten cases without a mortality make us feel the mortality rate from this operation will be reasonably low in carefully selected and well handled cases. Naturally, we are pleased to have had no mortalities, especially as at least two of our cases were very poor risk patients.

The average age of this group of patients was 33.3 years; the oldest being 45 and the youngest 25. Progressive symptoms had been present for an average of 4.3 years before operation (Table 1) All patients were dyspneic on exertion and three were dyspneic at rest. Seven of the patients gave a history of hemoptysis and five had definite attacks of pulmonary edema. Eight had experienced at least one bout of decompensation. Five complained of intermittent precordial pain. Eight of the patients were either seen with or gave a conclusive history of bouts of auricular fibrillation.

Results have been excellent in three cases, good in two, and fair in two. (Table 2) The remaining three patients have been operated upon too recently to evaluate the results. Patients continue to improve for as long as six to twelve months. In the three recent patients one is expected to have an excellent result, one good, and one fair. One patient with an excellent result was unable to walk more than a half block without having to sit and rest. Recently he played seven innings of baseball without any dyspnea. Another patient with an excellent result was bed-ridden for nine months and now does full time domestic work including the care of two small children and cleans a doctor's offices in addition. One patient with a good result recently cleaned five acres of rough land without difficulty. He estimates he is 90% improved. However, he does have some mitral insufficiency. One patient with a fair result was operated upon primarily because she had three cerebral emboli from her thrombosed left

auricular appendage. A small incision was made in the lateral commissure although she had considerable mitral insufficiency as well as mitral stenosis.

Discussion

We all ask the question "Does the stenosis recur?" We would not expect this to occur for several reasons. First, the

TABLE I
SUMMARY OF SYMPTOMS

Dyspnea	10
Hemoptysis	7
Decompensation	8
Auricular Fibrillation	8
Pulmonary Edema	5
Precordial Pain	5
Average Duration of Progressive Symptoms	4.3 yrs.

Predominant symptoms presented by ten patients who have had mitral valvuloplasties.

TABLE II
RESULTS

Excellent	3
Good	2
Fair	2
Too Early for Evaluation	3

Of the three patients whose operations are too recent to evaluate one patient is expected to get an excellent result, one good, and one a fair result.

edematous endocarditis of rheumatic infection that held the swollen leaflets together until fusion and stenosis occurred is not present at the time of surgery. Second, the leaflets are mobilized so that they open and close during each cardiac cycle and remain open longer than closed since diastole is a longer phase than systole. Third, the patients have continued to improve rather than regress. Harken and associates have had a patient die of what was probable cirrhosis many months after mitral valvuloplasty. At postmortem, there was no evidence of recurring stenosis³. Our lack of knowledge of the exact pathologic evolution of mitral stenosis behooves us not to be dogmatic about the subject.

Mitral valvuloplasty is certainly the most physiological method yet devised of surgically attacking stenotic mitral valves. The results to date are encouraging and warrant the continuation of the procedure as an aid to this unfortunate group of patients.

Summary

- (1) The need for corrective surgery on stenotic mitral valves has been discussed.
- (2) The history of mitral valve surgery has been briefly reviewed.
- (3) The operative technic we use has been described.
- (4) Our ten cases of mitral valvuloplasty

without a mortality have been presented in summary.

(5) The need for careful preoperative evaluation and selection of patients for operation has been stressed.

We are indebted to Mr. Frank Shook and Mrs. Catherine Bauscher, Department of Visual Education, Medical School of University of Louisville, for their assistance and excellent work done on the illustrations.

Two of these patients were operated upon at the Veterans Administration Hospital, Louisville. The remaining eight were private patients.

Since the date of presentation of this paper, three other patients have had successful mitral valvuloplasty.

BIBLIOGRAPHY

1. Wolfe L., and Levine, H. B.: Hemoptysis in Rheumatic Heart Disease, *Am. Heart Journal*, 21:163, 1941.
2. Levine, H. B.: *Clinical Heart Disease*, W. B. Saunders, p. 68, Second Edition.
3. Harken, D. E., Dexter, L., Ellis, L. B., Farrand, R. E., and Dickson, J. F., III: Surgery of Mitral Stenosis, III Finger Fracture Valvuloplasty *Am. Surg.* 134: 722, 1951.
4. Cutler, E. C., and Levine, S. A.: Cardotomy and Valvulotomy for Mitral Stenosis, *Boston M & S J.* 188: 1023, 1923.
5. Allen, D. S., and Graham, E. A.: Intracardiac Surgery, a New Method, *J.A.M.A.* 79: 1028, 1922.
6. Cutler, E. C., and Beck, C. S.: The Present Status of the Surgical Procedures in Chronic Valvular Disease of the Heart, *Arch. Surg.* 18: 403, 1929.
7. Smithy, H. G.: An Approach to the Surgical Treatment of Valvular Disease of the Heart, XVI Annual Assembly of the Southeastern Surgical Congress, Apr. 5-8 Hollywood, Florida, 1948.
8. Harken, D. E., Ellis, L. B., Ware, P. F., and Norman, L. R.: The Surgical Treatment of Mitral Stenosis, I Valvuloplasty, *N. Eng. J. Med.* 239: 801, 1948.
9. Bailey, C. P.: The Surgical Treatment of Mitral Stenosis (Mitral Commissurotomy). *Dis. of Chest*, 15: 377, 1949.
10. Bland, E. F., and Sweet, R. H.: A Veinous Shunt for Advanced Mitral Stenosis, *J.A.M.A.*: 140, 1259, Aug. 20, 1949.
11. Glover, R. P., O'Neill, T. J. E., and Janton, O. H.: Commissurotomy for Mitral Stenosis, Resume of Exhibit, Clinical Congress of the American College of Surgeons, Sept. 22-26, Waldorf Astoria, New York, N. Y., 1952.

The Management of Cancer of The Cervix

JAMES A. CORSCADEN, M. D.

New York City

From the Department of Obstetrics and Gynecology, Columbia University, New York City

Cancer of the cervix is a very important disease because of its frequency and because although it is readily diagnosed and cured, it actually at the present time is being cured in a small proportion of cases. It kills more women than any other cancer¹. Three percent of any group of women aged twenty to fifty will get cancer of the uterus before they reach the age of eighty². In younger women the cancer will almost always be in the cervix. In later years the proportion of corpus cases rises but never equals that of the cervix at any age. Eight of five hundred asymptomatic women have

been found to harbor intraepithelial cancer of the cervix³.

There is a deplorable difference between the actual cure rate and that which is attained by treating the disease by good methods. Less than twenty percent of women with cancer of the cervix survive five years whereas, with the diagnosis made while the disease is limited to the cervix, seventy percent are being cured; when the lesion is less than one centimeter in diameter, close to ninety percent are saved. Practically all cases of subclinical invasive cancer (invisible and impalpable), and literally all cases of intraepithelial cancer can be cured⁴.

No matter what may be the case with cancers in other locations, there is a definite correlation between the extent of the cancer in the cervix and the five year prognosis. Therefore it becomes imperative to devise a plan by which an early diagnosis can be made. The discovery of cases of intraepithelial cancer (cancer in situ, non-invasive cancer) is of double importance because as Rous⁵ says, the cancer at this stage is not only limited in extent but is "different." It lacks the capacity to invade.

Objective Diagnosis

The diagnosis must be objective. We shall not get very far if we await symptoms to drive the woman to the physician. Bleeding, the only symptom of any importance, occurs when the surface ulcerates. This may be early or late. As a result, the onset or duration of this symptom gives no indication of the stage of the disease. Twombly⁶ in a study of 900 cases at the Memorial Hospital in New York City found no correlation between the duration of bleeding and the stage of the disease. In our clinic 30% of Stage III (inoperable) cases had had bleeding less than two months and five women had had no bleeding at all. McKinnon⁷ found that the mean duration of bleeding in Stage I was 8.6 months, in Stage II 8.7 months and in Stage III 7.9 months. Sixteen percent of Stage I cases had had bleeding for over two years.

Age and Race Significance

The age of the patient is of some value. One point to be remembered is that while the peak of the incidence of the disease in hospital admissions is at age forty-eight, the incidence per age group increases progressively until the end⁸.

Race is of some significance. It is generally observed that cancer of the cervix is extremely rare in those of the Jewish race.

Method of Making an Early Diagnosis

How then shall the early diagnosis be made? First women must be educated to expect at least one annual vaginal examination. To accomplish this the most important act is first to convince ourselves as cancer specialists, then the general medical profession and above all, the women themselves that 100% of intraepithelial cancers, 95% of microscopic cancers, 80% of small cancers, and 70% of all cancers limited to the cervix can be cured.

The present state of mind of the cancer

patient is that "cancer carries with it the threat of an early death, usually a painful and lingering death"⁸. Until this notion can be corrected, women will be justified in continuing the evasive tactics which now prevent them from seeking an early diagnosis.

Responsibility of General Practitioner

Who will conduct the examination? I think that for decades to come the responsibility and privilege will rest on the shoulders of the general physician. The number of "cancer detection" clinics, which are in fact clinics for the examination of symptomless patients, and in which are discovered ten times as many non-cancerous as cancerous diseases, will be limited. In twenty minutes the physician can eliminate accessible cancers. At present general hospitals and general physicians do not care to examine the asymptomatic patients or for that matter, patients with symptoms. In 50% of the cases in which the doctor missed the diagnosis of gynecologic cancer, he failed to examine the patient⁹.

The worthwhileness of periodic examination of symptomless women has been sharply questioned⁷. Whatever the case may be in other organs, it is easy to demonstrate a correlation between the clinical stage of cancer of the cervix and the fatality.

Methods of Diagnosis

The objective diagnosis of cancer of the cervix will be made by the (1) clinical examination (85% reliable), (2) the Papanicolaou smear (90% reliable), and (3) the biopsy, (95% reliable.) Unfortunately the appraisal by the pathologist is made on the bit of tissue handed to him and on that alone. This bit may not contain a part of the cancer. By the use of all three methods, practically no cases escape diagnosis.

The Papanicolaou smear should be taken both from the fluid in the posterior fornix and by rubbing the external os with a spatula. Particular care should be taken to prevent drying before the slide is dropped into the ether and alcohol mixture.

Clinical Examination

The clinical examination will reveal a mass, an area of induration or an ulcer. Friability is the most important sign. This is revealed in a small lesion by bleeding from insignificant trauma, (coitus, rubbing

with a sponge or spatula) and by an ordinary surgical probe¹⁰. If the tip of the probe sinks into an area which looks like an ordinary erosion, a biopsy should be taken.

Value of Biopsy

The biopsy should be taken by a gynecologist. Who should do this depends on the medical set up in the community. If a physician so much as touches an "erosion" with silver nitrate, he becomes a "specialist" and is responsible for a cancer which may be present. He should take the biopsy. The best biopsy, from the standpoint of the pathologist is a flat slab taken with a knife showing the junction between normal and suspected tissue. Most biopsies will be taken with a punch which, as far as possible, should contain the same tissue as mentioned. Biopsies taken by a high frequency loop are usually "cooked." Considerable skill is required to avoid this.

Biopsies of the cervix not presenting any apparent lesion even with the aid of Lugol's iodine solution should include the whole external os whether taken with the punch, a knife, or with the Gusberg¹¹ instrument.

"Scraping" biopsy and "sponge" biopsy are at the moment subjects for investigation.

Definition

Cancer of the cervix is an example of that type of cancer which develops in a normal tissue. There is an alteration in the growth characteristics of the cells beginning almost always at the squamocolumnar junction at the external os or at the edge of an erosion. There is (1) metaplasia in which cylindrical epithelium becomes squamous. This process is reversible in most cases. (2) Basal cell hyperplasia is the condition in which the cells of the basal layer acquire the histologic characteristics of malignant cells but as they develop and reach the surface, become keratinized and maintain a normal stratified arrangement. This condition is also considered to be reversible. (3) Cancer in situ is the condition in which the cells exhibit all the characteristics of cancer and occupy the entire thickness of the epithelial layer but remain confined to it. (4) Frankly invasive cancer is present when the neoplastic process has reached the point where the tumor cells break through the basal layer, and dip down into the submucosal stroma. From here on the process continues until death of the host.

Classification

The International Classification was adopted to permit the uniform reporting of statistics and is admirable for that purpose. It, however, is unsatisfactory for other purposes such as the stimulation of earlier diagnosis and improvement in treatment. Stage I includes too many types ranging from subclinical or "microcarcinoma" to a mass several centimeters in diameter. Several classifications have been devised to identify the earlier stages, (Schmitz¹², Miller¹³) but become entangled with the International. The classification used at Sloane Hospital keeps within the International by dividing Stage I into Ia subclinical invasive lesion (microcarcinoma); Ib lesions smaller than one centimeter; and Ic lesions limited to the cervix. Stage Ia is to be studied by special methods for early diagnosis and treatment although the term "early cancer" is a misnomer. Stage Ib should be the lesion upon which emphasis should be placed by layman, general physician, specialist. 85% to 90% can be cured. This has all the clinical characteristics of cancer and requires no special technique for diagnosis. Ic is neglected cancer, although it is still limited to the cervix. By so dividing Stage I the smaller cancers may receive appropriate attention without interfering with the use of Stage I for statistical purposes.

Histologic grading does not influence diagnosis or treatment.

Stage 0, intraepithelial cancer of the cervix, cancer in situ etc., requires special discussion. It was deemed advisable to separate this lesion from invasive cancer until the question is settled as to whether this is actually the beginning of an unequivocal cancer or whether it is a "precancerous" condition, which may or may not develop into the real thing. In favor of the idea that this is a true cancer, it is pointed out that (1) cancer in situ has been observed to progress and become frankly invasive. (2) Prior biopsies show that cancer in situ preceded invasive cancer. (3) Invasive cancer is seen in the midst of pre-invasive cancer, often multicentric. (4) Cancer in situ is frequently seen at the edge of invasive cancer.

Against the idea that this is a true cancer, it is argued that there are (1) too many cases of cancer in situ in proportion to the number of frank invasive cancer. This may or may not be true. Mass detection techniques will glean all the cases which might be expected to appear as

frank cancer during several succeeding years. (2) Cases of apparent regression will probably turn out to be cases of basal cell hyperplasia.

We, for practical purposes, must conclude that cancer in situ is a true cancer limited to the mucous membrane and not yet capable of invasion.

Treatment

The treatment of cancer of the cervix has four phases: (1) Preventive treatment, (2) Treatment of cancer in situ, (3) Treatment of localized invasive cancer in which there is a free choice of treatment and (4) Treatment of extensive cancer.

Prevention

Prevention is by eliminating endocervix and the squamocolumnar junction by deep conization or cauterization, by amputation of the cervix or by performing routine complete hysterectomy for benign conditions. Removal of the cervix during hysterectomy is based on policy and not on parity or the condition of the cervix since actually there is an excessive number of nulliparous women with cancer of the cervical stump. Circumcision is a good practice and may be a cancer preventive procedure.

Treatment of Cancer in Situ

The disease is localized, slowly growing or dormant and noninvasive. The lesion is "different" as well as small.

(1) If the menopause is acceptable, complete hysterectomy should be performed or a cancericidal dose of radiation given. (2) If childbearing must be preserved, conservative excision, Sturmdorf amputation of the cervix or excision by high frequency may be performed. The patient remains a cancer suspect and must have repeated Papanicolaou smears. Increasing experience is reducing the number of patients who may be conservatively treated. (3) In pregnant women the child may go to term if it is established that the cancer is definitely invasive. Basal cell hyperplasia is frequently observed in the cervixes of pregnant uterine and may be called cancer in situ. (4) Treatment with endocrines to make an irreversible tumor become reversible is a fascinating objective. This phase of treatment must be considered experimental at the present time.

Treatment of Invasive Cancer

The treatment of invasive cancer is by operative removal or radiation. Historically all of the methods employed are very old. Hysterectomy devised in 1878 by Freund¹⁴ was found to be of little use. Radical Hysterectomy by Clarke 1895¹⁵, Werder¹⁶, Wertheim 1900¹⁷ accomplished much more. External x-ray was used before the turn of the century and was applied directly to the cervix in 1902 by Caldwell¹⁸. Intracavitary radium was apparently first used by Truman Abbe in 1903¹⁹. Interstitial radium proposed by Alexander G. Bell in 1903 was tried but not systematically used until Pitts and Waterman, 1926²⁰.

Radium and X-Ray

All the methods went through various stages of development but were abandoned by nearly everyone in favor of intracavitary radium so that by 1930 this was the standard accepted procedure for cancer of the cervix.

But in 1937 Merritt²¹ revived the use of the transvaginal x-ray cone. In 1940 Meigs urged and revised the radical hysterectomy because more extensive surgery could safely be carried out in view of the great advances in the treatment of shock and infection and in the administration of anesthesia. Pitts and Waterman continued the use of radium²² so that we now find four techniques in use for the treatment of cancer of the cervix, (1) intracavitary radium, (2) interstitial radium, (3) transvaginal x-ray and (4) radical hysterectomy. Simple complete hysterectomy will not be considered as an adequate treatment for cancer of the cervix.

Choice of Therapy

Our choice of therapy will be made on (1) the clinical results, (2) the injuries caused, (3) the ease with which the procedure may be carried out and (4) the applicability of the method.

Our conclusions must be guarded because of the different standards of clinical classification, therapeutic technique and follow up procedure. It is impossible to compare the results of one individual with those of another. However, by gathering together a large number of reports from many clinics in widely separated centers and by making a broad range study of these reports, we may approximate the

truth. Our study will be of the reports recently presented. At the moment we are interested in what may be promised to a prospective patient today rather than in the historical aspects of the problem.

Intracavitary Radium

Intracavitary radium has been used so much and by so many that its results may be studied with some accuracy.

A compilation of recent reports of 5-year survivals from 15 clinics in 5 countries shows that by this technique a survival of around 70% is obtained in cases classed as Stage I League of Nations. Two clinics reported a survival rate of 53% which^{23,24} it was shown, was due to the type of therapy employed; 7 clinics reported cures between 70-75%;^{25, 26, 27, 28, 29, 30, 31}, 3 between 75-80%,^{32, 33, 34} and 3 over 80%^{35, 36, 37}.

Injuries following intracavitary radium always occurred and probably will because only a few therapists measure the amount of radiation which reaches the lining of the intestinal and urinary tract. Such injuries are not necessary. Radiation severe enough to cause significant injury to bladder and rectum does not increase the five-year cures. For ten years we have known how to measure the amount of radiation reaching any point in the pelvis and can keep the dose reaching the rectal mucosa down to 6000 gamma roentgens which is a safe dose. In our own experience we have had no intestinal injuries since 1937 until 1951 when, after juggling with the technique, two have occurred. The same is true of injuries to bladder and ureter. They need not occur. Vesicovaginal fistula occurred in four of our cured patients, the last in 1937. The number occurring in patients dying of cancer is unknown since we do not observe the terminal phases of the disease. Ulcer of the bladder seen frequently in the earlier days has not been seen since 1940. Stricture of the ureter has been discovered in two patients cured of cancer. I think it fair to say that in my hands the occurrence of an important urinary intestinal injury would be due to an error of some kind.

Intracavitary radium is the simplest operative procedure, infinitely easier to perform than a radical hysterectomy and much easier than the introduction of needles into the tissues. It can be applied to practically any case of cancer of the cervix.

Interstitial Radium and X-Ray Therapy

Interstitial radium has been used by only one group in a statistically significant number of cases. Pitts and Waterman report a 5-year cure of 71% in Stage I League of Nations cases. Injuries are a little higher than with the intracavitary techniques and of the same kind. Accidents from needles penetrating the peritoneal cavity or viscera are negligible. The method requires considerable surgical skill and a knowledge of anatomy and of the principles of radiation.

X-ray Therapy through a vaginal cone has been little used. Four reports^{38, 39, 40, 41} give results of 53%-71% five-year cures in Stage I. The principle of the technique is simple. The rays are directed through a cone inserted into the vagina either to one large field or to three up to five small fields. The precise administration of the method on the other hand requires infinite patience and close checking to be certain that the rays are being directed to the desired area. It is generally applicable but fails in contracted and distorted vaginæ.

Radical Hysterectomy

The revived radical hysterectomy also has a meager statistical background. Read⁴² reports a 5-year cure of 50%; Morton⁴³ 64.7%; Masson⁴⁴ 38.9%; Meigs⁴⁵ 80% in Stage I League of Nations. Schlink⁴⁶ gives 7000 milligram hours of radium, operates six weeks later and cures 70% of Stage I cases.

The operation is the most difficult in gynecologic surgery and has in this country been used in only 8-15% of the diagnosed cases.

The mortality has been reduced to near zero. Liability to injuries should be considered as inherent in the operation. The innervation of the bladder must of necessity be largely destroyed. The blood supply of the ureter must be interfered with. Unless the ureter is well cleaned, cancerous tissue of the paracervical regions will remain. On the other hand stripping the ureter of its sheath for one centimeter will cause necrosis. Consequently, injuries to bladder and ureter run from 7 to 25%.

Summary of Treatment

To summarize the treatment of localized (operable) cancer of the cervix intracavitary radium combined with external x-rays has a better five-year cure rate than radical hysterectomy, causes significantly

smaller number and less severe injuries, can be applied to practically all cases and is infinitely easier to carry out. It remains therefore the standard treatment. Radical hysterectomy should remain a problem for study. Anything less than a clean dissection of the pelvis from wall to wall will promise an unacceptable number of recurrences. This operation should be performed only by the elite under the most favorable circumstances, (Blood banks, shock, infection, etc.) in cases resistant to radiation and possibly other types of cases which may be discovered.

Interstitial radium in our experience has given, in bulky Stage II and Stage III cancer, results in the first few years superior to those obtained by intracavitary radium. We have not used it in the localized cases.

Treatment of Advanced Cases

The treatment of advanced cancer is in my opinion palliative, with radiation to limit the growth of the disease and occasionally cure a case. Exenteration has been carried out in a considerable number of cases. The mortality has been reduced to 25%. Judgement of the wisdom of performing this operation must await further experience.

Technique of Radical Hysterectomy

The technique of radical hysterectomy may be summed up by the word "thorough." The pelvis must be cleaned from the external iliac vessels on one side to those on the other, cleaning off the obturator fascia and the levatores, leaving

only the obturator nerve and the ureter.

Radiation technique requires a wide dispersal of the radium sources in the pelvis and a low intensity; a small amount of radium for a long time, such as 60 milligrams for 100 hours. X-ray therapy is administered in the same slow fashion.

Summary

There is a definite correlation between the clinical stage of cancer of the cervix and the mortality rate.

The five-year cure rate for cancer of the cervix may be raised from about 20% to 80% and under perfect conditions, to 100% by: Periodic examination of symptomless women; ignoring the symptoms of cancer of the cervix and performing a pelvic examination on all women at least once a year including (1) a clinical examination, (2) a Papanicolaou smear and, in selected cases, (3) a biopsy.

The standard treatment of cancer of the cervix is by intracavitary radium combined with external x-ray because (1) it gives the best five-year results, (2) it is easiest to carry out, (3) it is generally applicable, and (4) causes fewer and less severe injuries.

Radical hysterectomy should remain a matter for study by the elite having extraordinary operative facilities. Less than the complete removal of the uterus, vagina and all the parametrial tissues will promise an unacceptable number of recurrences of the disease.

Due to the Journal policy regarding space requirements, the references in this article could not be listed. A copy of them may be obtained on request from the Journal office.

Otalgia

WILLIAM L. WOOLFOLK, M. D.

Owensboro

This paper has been prepared in the hope that it may be of some little help to you should you be faced with an earache which does not follow the standard pattern.

Otalgia or earache is one of the most frequent complaints heard in every otologist's office any time of the year and it would rank well to the fore in every general practitioner's medley of complaints during certain times of the year.

Differential Diagnosis

Once presented with the complaint of otalgia, it becomes necessary to make a differential diagnosis. All otalgia falls into one of several groups: (1) that due to pathology of the external ear, (2) that due to pathology of the middle ear and (3) otalgia due to referred pain from some distant origin. There is no sensory nerve supply to the inner ear, therefore pathology of the internal ear is not associated with earache. All earache is due to irritation of sensory nerve endings in

either the 5th, 9th or 10th cranial nerves. The auricle and external auditory canal received sensation through the trigeminal or 5th cranial nerve. The deeper parts of the external ear canal, especially the upper and posterior portion, are supplied by Arnold's nerve from the vagus or 10th cranial nerve. That is why one often elicits a cough reflex when a cotton applicator or other instrument is placed deep in the ear canal. The drum membrane is principally supplied by sensory branches from the 9th or glossopharyngeal nerve through the so-called Jacobson's nerve, although there are some trigeminal and vagal branches present and there may be some sensory branches from the facial or 7th nerve through the geniculate ganglion. From the above one realizes that otalgia may result from lesions anywhere in the distribution of the 5th, 9th or 10th cranial nerves far away from the actual ear itself by referred pain. About 50% of otalgia will be of referred origin and will not show any aural pathology at all. In the remaining 50% of cases disease in the external and middle ear will be about equally divided, otitis media being most frequent in the winter months when upper respiratory disease is prevalent and external otitis in the warmer months of summer. This fact is not so remarkable when we remember that external otitis is primarily a disease of the hair follicles located in the skin of the cartilagenous canal and likewise remember that during warmer weather these glands take on more activity than they show in colder weather. Also swimming is the order of the day in the good old summer time and furunculosis is common. As stated before, in the colder weather upper respiratory infections and sinusitis are more frequent and as you all know otitis media is a common complication.

Referred Pain

Let us then first consider referred pain in the ear and later on we will consider briefly external otitis and otitis media. Dental disease accounts for a large percent of referred otalgia. Caries, especially in the molar teeth, frequently cause earache even before toothache. Impacted wisdom teeth, especially the upper wisdom teeth, are a frequent cause of earache. Obstruction due to stone or other pathology in the ducts of the salivary glands may cause referred otalgia. Ulceration of the buccal mucous membrane or

of the gingival mucosa will refer pain to the ear through the trigeminal or 5th nerve.

Pharyngeal disease is often attended by earache by way of the 9th nerve. One often has earache associated with peritonsillar abscess on the same side. Sometimes acute tonsillitis will have associated earache. This is due to irritation of the branch of the glossopharyngeal nerve which traverses the fascia of the tonsil fossa on its way to the ear. This also accounts for the frequent complaint of earache following tonsillectomy. In many of these cases the nerve is exposed during surgery and later becomes engulfed in scar tissue. At times an acute edema of the soft palate or uvula will have an associated otalgia. The above anatomical truth will often enable you to remove a foreign body in contact with the ear drum which has previously failed at removal because of pain on manipulation. Injection of a few minims of novacaine 1% behind the back of the tonsil will relieve the pain of manipulation against the eardrum. Sometime the same relief may be obtained by spraying thoroughly the throat on the same side with 2% pontocaine.

Referred Otalgia

Otalgia of vagal origin is not so frequent as that from trigeminal or glossopharyngeal irritation. One of the cardinal symptoms of tuberculous ulceration of the larynx is hoarseness with pain in the ear, usually the tip of the lobule and quite severe. Other laryngeal disease will produce otalgia when the superior laryngeal nerve is involved. Of course it goes without saying that the correct treatment for referred otalgia is location of the cause, correct the cause and the pain soon disappears. Naturally no local treatment to the ear is required in cases of referred otalgia. It may be necessary to prescribe analgesics for the immediate relief of referred pain until the other treatment takes effect. If you do not remember anything more about the paper as read so far, please do not forget to look into the mouth and throat in any case of otalgia which is not explained, because fully fifty percent of earaches are of referred origin.

External Otitis

As previously stated external otitis is usually manifested as a folliculitis of the skin of the cartilagenous portion of the external auditory canal. If the inflamma-

tion is circumscribed we call it furunculosis and if there is a diffuse inflammation, as in a chronic eczema which has become acutely inflamed, we say there is a diffuse external otitis and in each case there is pain which is exaggerated by lying on the ear, by manipulation of the ear and often by the act of chewing. There is no great hearing loss unless the external canal is completely occluded by the swelling. Examination with an otoscope will reveal the condition present. Management of these conditions should be conservative.

Treatment

Dry heat is an important part of the treatment. A gauze strip or cotton which is moistened in otomide or otosmosan is inserted rather snugly into the canal, dry heat is applied and additional drops added to the wick every two or three hours. The glycerine base of the otomide or otosmosan acts as a continuous wet dressing and is at the same time a dehydrating agent, while the sulfonamide acts as an antiseptic and prevents the spread of the infection to the hair follicles. If a furuncle points it may be incised but furuncles which do not point are never incised. To do so may spread the infection leading to a widespread cellulitis or even a chondritis. Some men routinely use deep X-ray therapy or ultraviolet as they tend to localize the infection and relieve pain. A combination of codeine, aspirin and phenacetin will usually relieve the pain and the patient should certainly receive such a prescription at the very first visit. It is our policy to follow these patients daily, removing the pack for inspection and thorough cleansing usually with an alcohol soaked applicator before replacing a larger wick as needed to snugly fit the external canal. Antibiotics and the sulfonamides singly or together are used depending on the severity of the condition. If penicillin is used it is always given by intramuscular injection and never by mouth. After subsidence of the acute stage, we prescribe 10% ammoniated mercury ointment for daily use by the patient over a period of two weeks to prevent recurrences. The patient should be advised against permitting water to enter the ear canals, against scratching the canal with the ever present match or bobby pin and he should also be impressed with the importance of having the ears properly cleaned by a physician twice a year if recurrences are to be prevented.

Management of Acute Otitis Media

Management of acute otitis media depends on whether or not the drum membrane is still intact. If the drum is still intact the physician must decide whether or not myringotomy is indicated as other treatment will depend on this most important decision. We feel that every effort should be made to eradicate the pathology without myringotomy but if there is doubt, it is better to err on the side of a myringotomy properly done rather than permit spontaneous rupture which is usually central and seldom adequate for proper drainage. If procrastination is the order of the day some type of hydroscopic ear drops such as Auralgan is prescribed but under no condition should drops containing phenol or other caustics be prescribed. No good can come from the phenol and its caustic action prevents the physician from getting a clear view of the drum at subsequent visits due to the superficial escharosis and hyperemia. Ordinary glycerine is not as effective as Auralgan because Auralgan is composed of the most hygroscopic glycerine available. If one is dealing with a case of myringitis bullosa, the so called virus or influenza myringitis characterized by large blood vesicles on the drum, an ear drop containing hygroscopic glycerine and a sulfonamide such as the commercial otomide or otosmosan are prescribed in order to sterilize the canal after the vesicles have ruptured. It is imperative that adequate chemotherapy be given either orally or parentally in all cases of middle ear infection. In most cases combined sulfonamides and penicillin and dihydrostreptomycin is superior to either alone and sulfonamide is better than penicillin if but one is to be used. Aureomycin or Terramycin may also be required. Particular attention is paid to the nasopharynx since most cases of middle ear infection are secondary to pathology in the nasopharynx. The patient is instructed to blow his nose with great care, always blowing both sides at once and with the nostrils relaxed.

Value of Myringotomy

If the patient does not respond to the above conservative treatment or if his condition grows worse, a careful myringotomy should be done. In all children and in many adults we use a general anesthetic, vinethene in children and sodium pentothal in older children and in adults.

If spontaneous rupture has occurred when first seen, the adequacy of the drainage must be determined. Most spontaneous perforations are neither adequate in size nor located for dependent drainage so that in many such cases an elective myringotomy is done in spite of the spontaneous perforation. Such an incision will allow adequate drainage and will permit the spontaneous rupture to heal. The great danger of spontaneous rupture is its tendency towards permanency. Following myringotomy all local glycerine medication should be stopped. The after care then may consist of the wet treatment (frequent irrigations) or the dry treatment (no irrigations).

Treatment Following Myringotomy

It is our opinion that the dry treatment or some modification of it is best used in most cases. With this method a small pledget of cotton is placed at the external meatus of the canal and changed when necessary and at subsequent office visits capillary suction is used by the physician. At the follow-up visits following myringotomy if the drum is seen to pulsate, there is still secretion under pressure and mass suction should be applied to the external auditory meatus up to three inches of negative pressure but no higher for fear of dislocating the ossicles. Occasionally a second myringotomy is necessary to obtain adequate drainage. Of course chemotherapy is being continued. If the discharge is tenacious and copious an occasional irrigation with sterile normal saline may be used. Normal saline is much to be preferred instead of boric acid solution since the boric acid solution as usually made has a high surface tension and therefore no detergent effect as cleansing properties, and in addition it is frequently supersaturated when made at home and consequently precipitates the white boric acid where it collects in the recesses of the canal. If

an antiseptic is desired a 1-10,000 aqueous solution of Zephiran Chloride is used since it is not only germicidal but has a very low surface tension and hence has great cleansing properties. Zephiran is also non irritating since it contains no phenol or heavy metal. If irrigations become necessary they should be used as infrequently as possible and discontinued as soon as possible since continuous bathing of this tissue with water tends to produce edema and maceration and thus prolong the pathologic process. In order to avoid a permanent perforation and hearing loss it is necessary to stop the discharge as soon as possible. Recurrent attacks of otitis media should cause one to think of the adenoids or other lymphoid remnants in the nasopharynx which may require surgery, deep X-ray therapy or radium.

A. Difficult Diagnostic Problem

In this short paper I have endeavored to explain why a patient who comes to your office with a chief complaint of earache may present at times a very complex and difficult diagnostic problem. I have purposely avoided mentioning some of the more obscure causes of otalgia such as elongated styloid process, tumor of tongue or nasopharynx, temporomandibular arthritis, malocclusion, cervical adenitis, caries of the cervical vertebrae, goitre, Bell's palsy, secretory otitis, and herpes zoster. By this paper I hoped to remind you that earache is due to irritation of the sensory nerve endings of the 5th, 9th and 10th cranial nerves and I trust that the next earache that presents itself with a normal appearing external canal and tympanic membrane will cause you to search for the pathology in the distribution of those three cranial nerves. If you will make this simple search you will be rewarded by the thanks of a grateful patient and by the personal satisfaction of a job well done.

Treatment of Burns in Case of Atomic Warfare

HENRY S. HARRIS, M. D.

Bowling Green

Actually the nature of burns incurred in atomic warfare would be no different from other burns with the exception of the small percentage that might have radiation sickness and not tolerate the secondary infection. This group is estimated to be less than 20% of the total. Most of the burns would be of the flash type or secondary to the fire or burning building.

It is estimated that in a city of one million people, the explosion of one atomic bomb 2000 feet above the city would result in 60,000 burn casualties with a third of them being critical cases. So we see the problem would be how to treat a large number of burns with a limited amount of equipment and trained personnel. No one has the answer to this problem although many have made thoughtful suggestions. It is my own opinion that if we were confronted with such large numbers of burns today that we would be forced to adopt some simple local treatment and abandon those critical patients on whom in peace time, we spend so much time and material. There just would not be enough blood, plasma, dressings, and skilled help to adequately look after this many casualties.

Now since we have no first hand knowledge of such wholesale treatment of burns, let us turn to a consideration of what we do know about burns in the light of our past experience. As we review the pathology and treatment of thermal burns, I would like to pause and speculate as to how we might fit these factors into the treatment of burns secondary to atomic warfare.

Local Treatment With Tannic Acid

First, I wish to take up the local treatment of burns. Certainly there has been less and less emphasis put on the treatment of the burned skin itself. This trend has continued through the years until today there are a few who advocate no local treatment at all. Most of us remember the different phases of local treatment as used year after year. As a student, I well remember the tannic acid

spray as introduced by Dr. Davidson, of the Henry Ford Hospital. The patient was put under a heat cradle and it was my job to stand over him with a "Flit Gun," and spray tannic acid solution on the raw burned surface. This treatment seemed to help the patient through the stage of burn shock, but had the disadvantage of converting some of the minor burns into third degree ones. Also, the hard, leathery eschar had to eventually come away and as often as not, floated away in a pool of pus. Then as an intern, I remember the substitution of bright colored dyes for the tannic acid. We had one called the "triple dye." What bright colors these were! The hospital administrator put that method out of use because it ruined all the linens. Then we started dunking these poor miserable people in tubs of hot saline. This was fairly easy to do on the skinny ones but I well remember the struggle we had getting the fat ones in the tub. The granulations looked good but I believe the infection was actually worse. The "Flit Gun" reached its perfection with paraffin spray, and this really was a fairly good treatment if you only had one patient to treat, and had all day to spend getting his old wax off and the new on.

Closed Method

The present day closed method of treating the local lesion came into its own in the early days of World War II, and especially, after the Coconut Grove Fire in Boston. This treatment carries out the principles laid down by Dr. Sumner Koch in which the skin is carefully cleaned and debrided followed by a pressure dressing that is designed to prevent edema and escape of fluid as well as act as a comfortable splint. I have used this method on hundreds of burned patients in both army and civilian hospitals, and found it to be a very satisfactory treatment. Advantages should be taken of simplified dressings put on in large pieces, and with the assistance of at least two helpers.

Evils of Plaster Paris Cast Treatment

There is one perversion of this method that I never hope to see again, and that is the Plaster of Paris Cast Treatment.

While operating a burn ward in the South Pacific I received some 25 burn patients with ten day old burns treated by skin tight plaster of paris casts to both body and extremities. These boys had the most painful sloughing wounds filled with maggots and virtually converting all the superficial burns into third degree ones. Needless to say, they were happy to exchange their plaster for pressure dressings.

Open Air Treatment

Recently, Kyle and Wallace in England, and T. G. Blocker, in this country, have published the results of the open air treatment of burns. This method is still in the experimental stage and briefly consists of scrubbing the burn with soap and water and removing all of the loose skin allowing the air to coagulate the serum that appears on the surface. If this coagulated serum cracks, then they feel the cracks should be covered and infection treated by wet compresses. It is far from a simple treatment and requires lots of time and help although fewer dressings. Some surgeons have pointed out that any treatment short of the details as outlined, constitutes surgical neglect. Some modification of the method might prove valuable in case of atomic warfare but as outlined by the authors it is far from practical.

Mass Treatment of Burns Due to Atomic Bomb

After this review of tried local methods throughout the years, let us speculate as to what might be done if we were called to treat the local lesion on, say 60,000, burns, today. I believe the closed pressure method would be the most desirable and would make transportation of these people easier and more comfortable. Mobility is of the utmost importance because if the burn is minor, then he must go and come as an outpatient for his treatment. If the burn is critical, then he must eventually go to a base hospital for skin grafting and definitive treatment. I do not feel that any treatment of the burned skin other than removal of the gross dirt and loose fragments would be practical. No medication on the skin would be of any value. I well remember a colored soldier I treated in the last war by the local application of large amounts of sulfa drug. The cause of his profound illness following the dressing remained a mystery until we got a blood level for the sulfa and found it in

the thirties. I believe the most practical dressings would be bed linens. These could be found in most every household and in almost bacteriologically sterile condition as they are returned from our modern laundries. Strips of these clean linens could quickly be dropped into melting pots of vaseline and paraffin which would keep them from sticking to the raw surfaces and facilitate their removal. Mixtures of these two materials would be cheap and available, and make an ideal dressing if not applied too thick. Pressure over these dressings such as we usually obtain by use of ace bandages and stockinette cut on the bias could be improvised by cutting undershirts or "T" shirts on the bias. Even thin woolen sweaters and socks could be used.

Systemic Treatment

Next, let us consider the second and most important phase of treating the seriously burned patient. This is the systemic or general treatment. It has to do with the treatment of what we usually refer to as burn shock. Now to review the pathological changes that occur in the tissues of the severely burned patient. Some of the cells are dead and coagulated and will be removed from the body by the same processes as remove any other foreign materials. Other cells are just sick and can no longer perform their usual function. It is these cells located in the capillary walls that allow the albumen molecules to escape into the surrounding tissue spaces and upset the osmotic pressures resulting in faulty exchange of oxygen and nutrition. It is this loss of plasma proteins that allows the hemoconcentration to occur.

Use of Plasma

We note that the processes are not reversible and that such tissues as brain, lungs, and kidneys suffer from anoxia which we cannot control even with fluids, blood, and plasma, if the burn is severe enough. When Dr. Blalock first demonstrated his theory of shock from plasma loss in dogs it was believed that if we had enough plasma this could be reversed. Many of us still had this idea until the War because we had never had enough plasma to really give it a try. During the War we gave tremendous amounts of plasma, up to 25-30 units in the first twenty-four hours, in an effort to keep the hematocrite and hemoglobin normal,

but still the patients died. I saw many autopsies on these patients and tissue fluids fairly dripped from the lungs and subcutaneous tissue. Our colleagues on the medical service felt we were drowning these people with intravenous fluids and I think we were; but it was lose them in circulatory shock or take the chance on tissue fluid excess. We tried all sorts of formulae for estimating the amount of plasma to give. Some used percentage of body surface burned and some the hematocrit reading as outlined by Dr. Harkins at Johns Hopkins. None of these seemed to work very well and it was noted that although the surface area was important that the deeper burns were much the sicker patients. Then we began to notice that whole blood was much better than plasma even in the face of hemoconcentration. Finally we were ready to throw the whole business of laboratory study out the window when Cope and Moore of Boston published their study of urinary output control of fluid therapy. They pointed out that if you put a catheter in the burned patient and study the output you will get a good index to how much fluid he will need. The desirable output is between 25 and 50 cc per hour. Now days it is felt that if the hemoglobin is kept below 19 grams then one need not worry too much about hemoconcentration.

Sodium and Potassium Balance

Recently it has been pointed out that burned patients suffer a disturbance of sodium and potassium balance and Dr. Evans of Richmond, Virginia, has proposed that all cases receive at least half of their fluid in the form of an electrolyte such as saline and bicarbonate. He feels that this disturbance causes a water intoxication in some patients. Sodium lactate can be used by the intravenous method to correct this disturbance.

Treatment in Atomic Warfare

Now, how could we apply some of these principles of treating the systemic effect of burns in the case of atomic warfare? First, we would need to set up a simple, but positive routine for treatment and control of the factors just outlined. Modern plastic tubing could be inserted into the large veins at the onset and left in place several days for continuous administration of fluids.

Charting must be simple, but visual and graphic rather than written out.

Large quantities of whole blood would be needed but not wasted on the hopeless ill. We found that for the average gasoline burn that if over 70% of the body was burned then the patient was doomed from the onset. Less severe flash burns of a greater percentage are reported as recovering.

Foley catheters could be inserted and the urinary output noted each hour.

Mixtures of saline and bicarbonate could be used by mouth as long as the patient would tolerate them. Some lactate could be prepared to go in the standard fluids.

Injection of the long acting antibiotics could be given daily.

Tetanus toxoid should be given if the patient had been immunized against tetanus.

In general, this would represent what need be done in the first week or ten days and could be done in any temporary building in which food and medical supplies could be delivered.

The third phase of the treatment of burns, put in its simplest terms, is getting the raw area covered with epithelium. In the 1st and 2nd degree burns this is no problem and if infection is kept at a minimum, coverage should occur by the third week. In third degree burns it is imperative that coverage with grafts be done early to avoid the debilitating influence of infection and scarring.

Skin Grafting

The burn is best prepared for grafting by giving the patient a general anesthesia as soon as he is in condition to tolerate it and cutting out the eschar down to the fat. In case of questionable third degrees, one will need to wait 2-3 weeks to see how deep the burn really is. However, I believe it is better to error on the side of converting some second degree into third than to wait around on a few islands of second degree and let the rest of the third degree pass the stage when it is best grafted.

Choice of Dressing

It is my custom to dress these raw clean areas with dry fine mesh gauze and pressure for 3-4 days at the end of which time it is removed and preparation made for grafting. If the bed is not clean and ready for a graft one may repeat the dry gauze and wait a few more days. If some necrotic eschar is present it should be cut a-

way, along with any granulation tissue, down to the dull gray vascular bed. Dermatome grafts are cut relatively thin (in the neighborhood of 14 thousandths of an inch) and will most always take in the early phase of the burn. They should be sutured in place and a bulky pressure dressing applied as in the primary dressing.

Proper Timing for Grafting

The success of treatment in this phase more than all else depends on proper timing. There is just one correct time to graft a burn and that is at the earliest moment the raw bed is in condition to receive the graft and the anemia has been corrected. If this optimum time is allowed to pass we are familiar with the disastrous results. It is the picture of the six month old burn with his anemia, scarring and contractures, low serum protein, weight loss, and characteristic emotional exhaustion. The problem of treating these late burns is one of the most difficult in all surgery and often requires tube feeding, the use of postage stamp grafts, splints, and a real program of physiotherapy. The best treatment of course is the prevention of the patients reaching this stage without epithelial covering.

Grafting Following Atomic Burns

Now what modification of this all important grafting phase could be carried out in case of atomic warfare? My own opinion is that no short cuts could be found. We would need to evacuate all the third degree burns by the end of the third week to the hospital centers staffed by surgeons who understand not only the use of the dermatome but the importance of the time element in grafting. The materials would be of the same nature as those used in the initial pressure dressings. Dermatome blades would be at a premium and the local barbers could be used to keep them sharp. In fact, I came onto what I considered a very fine blade once, and with the aid of a barber was able to use it over a period of two years in which I did dozens of full drum grafts.

One surgeon experienced in skin grafting could supervise a dozen doctors who understood general surgical principles and turn out an enormous amount of grafting, I believe.

I believe this paper represents the type of thinking and planning being done today by many doctors throughout the country which enables us to anticipate the demands to be made on the medical profession in case of disaster.

SPECIAL ARTICLES

BULWARKS

T. RUSS HILL

Detroit and Toronto Industrialist

Detroit, Michigan

It is a pleasure to come back to Kentucky to meet with this organization and I am grateful for your invitation. I have known your retiring president for many years and am confident that you have had a good year under his guidance. However, because of our long acquaintance it is hard for Clark to view me objectively so you will probably discount his remarks concerning me.

You would not expect me to talk about medicine or any of the ramifications of an organization such as yours because I know nothing about your business. I have been on the receiving end of your type of operations once or twice and I got the "business" then without hearing anything about it except your financial requirements. I understand, however, that you have your problems with regulations and, or controls and that the possibility of your being demoted to the intern stage is not entirely remote. I am in position to genuinely sympathize with you because of similar experiences in the business field. I even dare to hope that I may find an antidote for the common ills of a business man among the outstanding physicians of this illustrious gathering. It is barely possible that the disease and the symptoms are universal.

In one of our grammar schools the teacher asked the class one day, "What shape is the earth?" One small youngster raised his hand and said, "My father says that it's in the worst shape it ever was." Perhaps it is. Indeed George Bernard Shaw once remarked, "If the other planets are inhabited, they must be using the earth for their insane asylum." Mr. Shaw has since gone to his Valhalla. It would be interesting to hear what he would say today.

Evils of Our Times

In fact, it is interesting to hear what political leaders are saying here and elsewhere. They are having a most difficult time determining just which evil they will attack the most furiously. That is, all save the Russian leaders. They have a common enemy and they see to it that this enemy stays without. Years ago Will Rogers said, "Russia is a country that is burying their troubles. Your criticism is your epitaph. You simply say your say and then you are through." We can put up with the chatter here, particularly if we keep in mind another Rogers' saying, "If you ever injected truth into politics you'd have no politics."

However, putting up with it is not a constructive attitude and belongs to those beaten in spirit and hope. The opiate of easy money and "anything goes" must not be allowed to dull the people into that state while there is yet time. We must bestir ourselves and with courage look to the East, to hope.

Value of Medical Progress

Our technological developments have raised our nation to a peak of power with greater world-wide responsibilities than any nation has ever borne. It has been said that if medical progress were made available to the millions in the free world that it could add hundreds of millions of man-years to each generation, perhaps doubling the population growth in the next hundred years. Of course, that would not be good for many nations, particularly India with no bread for her present population. Such a situation does illustrate how far ahead of economics and politics science is, and this is only one phase of our technological development. For politics, our least developed science, to attempt to harness the science and economics of the nation is actually, therefore,

so obviously unsound that we wonder how it could ever have reached the proportions it has and become the dominant factor in all political campaigns.

Responsibilities to be Met

If as Professor Whitehead of Harvard said, "Everything depends on the next 20 years in America," it is all the more necessary that we get our facts straight so that we may make a good diagnosis and discharge the responsibilities which are ours whether we desire them or not. The late Lamont DuPont once said to me, "Get your facts and then go ahead." It is essential, therefore, that leaders such as those at this luncheon become vitally interested in getting their facts straight rather than picking up their positions from radio, television, and the press. So many people are now saying I want to hear more from this candidate or that one before making up my mind how I am going to vote. Still others are not even that much interested. 36,000,000 of such qualified voters had not registered at the last count.

Need of Spiritual Ideals

The spirit, the inner man, has not kept pace with our technology. That inner man will have to grow and grow mightily if the fate of the world does hang on what happens here in the next 20 years. We are sick inside. Heart trouble and cancer are not cured by the snap of a finger. It is a fairly long and dogged process. Neither can it be legislated away or banished by proverbs and declamations. Like Macbeth's "Out damned spot," it stays there until the individual removes it or has it done.

Corruption in Our Economy

The New York Times recently ran an editorial entitled, "Corruption is Treason." Indeed it is and the American people, all of us, are guilty as accessories in the moral debasement that is prevalent in American Life. It could neither happen nor be tolerated were that not a fact. "Who, me?" says each one. Yes, you and me.

Who support the gambling rackets? The individuals. Who elect public officials? The individuals—who tolerate dishonest officials? The individuals. Who encourage the high-lighting of sexual license in public entertainers? The individuals. Who stand aside and allow dope peddling to even flourish in our high schools? The

individuals. Who accept the Government's largess which dishonest officials sell? The individuals. Who tempt the taxgatherers to betray their trust? The individuals. In our present situation personal character counts and such character of necessity rests upon the simple bulwarks that have always underpinned sterling character.

Everyone knows that the Greeks put Socrates to death. Perhaps we have forgotten that there were 501 men on the jury which tried him and that the vote was 281 to 220 for death. If only a few more individuals had possessed the insight and courage to change their stand what a historic tragedy might have been averted. That is a parable of history and we are all on the jury now.

Evils of Socialized Medicine

Be not deceived. Happiness and well-being will not be secured for the individual through legislation. Neither can his health be guarded through the same process. Socialized medicine means a lower grade of medical service at more cost as has been proven in England for over five years. Socialized anything else leads to the same results. No power or law can make an idle man industrious, a thrifless man provident or a drunkard sober. The work must be done within the individual. There lies the answer to the state of the nation and the cancerous growth that besets it, for the individuals are the state. The fiber of the nation is no stronger than the individuals. "No possible rearrangements of bad eggs can ever make a good omelet," as another has put it, and we do have some bad eggs—symptoms of decay.

Financial Hazards and Wastes

The fifty-cent dollar is possibly the chief hazard to the nation's well-being despite the arguments advanced for and against the relative welfare of the people in that kind of an economy. The American consumers are spending at the rate of \$210 billion annually. The national income is running at the rate of \$260 billions. 50% of this income is synthetic. Suppose a crisis stopped that 50%. Price descents would be delayed. We could find ourselves between the jaws of a \$210 billion spending rate and a \$130 billion income rate. That would produce a crisis to end all crises. Indeed, it is like riding a bicycle down hill. If you ever stop peddling you fall on your face. I am not saying that this will happen. It is, however,

a very imminent threat to the bulwarks of freedom.

Our bulging bureaucracy is hard on the national arteries and like the whirl of the cheap dollar leads to high blood pressure. It is clearly portrayed in the over two and a half million people of the Federal payroll, the 30 million Federal checks going out from Washington each month to our people and the fact that there are an average of two federal workers in each voting precinct in the nation. The propaganda machine of the nation is just one example of this creeping disease. 45,000 people are employed by the government to carry on this work. Its cost is \$200 million annually. It operates 61 separate printing and duplicating establishments in Washington, 25 in Philadelphia, 23 in San Francisco, 16 in Chicago, 16 in New York City, 6 in Kansas City, and 6 in Denver to get out its printed propaganda. Hitler and Stalin's cohorts could not boast of such a mouthpiece. This can no longer be classed simply as a political issue. It is an alarming threat to the nation's foundations and second only to the cheap dollar which these practices further cheapen. There is power in the dollar, however, cheap or sound. Let us remember, though, as another put it: "First you get power; then you use it; then you abuse it; then you lose it." It is not too comforting to contemplate our situation today which is dangerously near the third step of this progression; dangerously near because of too much money and too little character.

Honor Corps

Corruption in the government and in the people is a symptom of the disease of the heart which saps the moral courage of the individuals, hence of the nation. Physicians tracing their code back to the Hippocratic oath know what it has cost and still costs to maintain in their profession what military men call "the honor of the corps." Men in the Stock Exchange where millions of dollars pass upon a nod or a word, know how indispensable is the honor of the corps. Today when so often our public morals seem to be slipping, these standards of honorable behavior in our business and professions are among the finest elements in American life. In fact, these practices are just as much a public service as nursing or medicine. It seems strange, very strange to me that so few of us are giving more than lip service,

if that, to the expansion of this "honor of the corps" to other fields, even the political. Certainly political parties and platforms will not curb this threat to the nation's continuance. Individuals can and should.

Communism

Communism is another symptom of the nation's malady. Whatever else it is, it is a convinced and flaming faith. It has to be met head on by courageous hearts filled to the brim with faith in ourselves and our institutions. "I believe. . . ." say the communists, and then they state the Leninist doctrine with a conviction that shakes the world. Their creed is "dialectical materialism" but don't let that phrase fool us. Dialectical materialism is no merely negative denial of God. It positively holds that the course of history is so conditioned that the victory of the communistic system is assured. Communists really believe that. They are convinced that what they stand for has cosmic backing. This is their religion—decked out with shrines, pilgrimages, holy places, rituals; a tireless missionary religion for which they are willing to live under discipline and die as for a holy cause. Naturally, a flaming faith like that must be met with a flaming faith. It cannot be blown up by a bomb. The question is can we meet the Reds with any comparable faith? The answer to that will not be found in the outcome of a political campaign. It will be found in the individuals. Those who have it will be zealous citizens and use their ballots and their influence with equal fervor.

Our Constitution

The constitution is a great document. It was written by courageous men of faith. It has been said that the constitution made this country, but is that quite correct. Did not the people of character rather make the constitution and make it work? Fifty years ago Thomas Edison said, "What man's mind can create man's character can control." Can it? That is the \$64-question. The conditions which I have touched upon are obvious to all. Man's mind created the technology that is responsible for most of them. The approach to them is not important whether it be political or social. The meeting of the issues and the spirit of the people is.

(Continued on p. 179)

The JOURNAL of the
Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

ASSOCIATE EDITOR: J. P. SANFORD

L. H. South, M. D.: Book Review Editor J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.	George G. Greene, M. D.	William R. Miner, M. D.
Rufus C. Alley, M. D.	R. Arnold Griswold, M. D.	Frank H. Moore, M. D.
Everett H. Baker, M. D.	William P. Hall, M. D.	James E. Moore, M. D.
Sam H. Black, M. D.	Emmet F. Horine, M. D.	George W. Pedigo, Jr., M. D.
James W. Bruce, M. D.	E. W. Jackson, M. D.	Alvin C. Poweleit, M. D.
John L. Dixon, M. D.	William O. Johnson, M. D.	Winston U. Rutledge, M. D.
Samuel H. Flowers, M. D.	James M. Keeton, M. D.	William L. Woolfolk, M. D.
Carl H. Fortune, M. D.	T. O. Meredith, M. D.	

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville	President-Elect
Charles B. Johnson, Russell	Vice-President
W. O. Johnson, 605 Brown Building, Louisville	Vice-President
G. Y. Graves, Bowling Green	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah	1953
Second District Walter L. O'Nan, 237 Second St., Henderson	1953
Third District Delmas M. Clardy, Hopkinsville	1953
Fourth District J. I. Greenwell, New Haven	1953
Fifth District Richard R. Slucher, Buechel	1954
Sixth District L. O. Toomey, Bowling Green	1954
Seventh District Branham B. Baughman, Frankfort	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington	1954
Ninth District J. R. Cummings, Flemingsburg	1953
Tenth District J. Farra Van Meter, 183 N. Upper Street, Lexington	1955
Eleventh District Hugh Mahaffey, Richmond	1953
Twelfth District Carl Norfleet, Somerset	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman	1953
Fourteenth District Paul B. Hall, Paintsville	1953
Fifteenth District Edward Wilson, Pineville	1954

EDITORIALS

PARTICIPATION OF GENERAL PRACTITIONERS IN BLUE SHIELDS BENEFITS

It has come to the attention of the Board of Directors of Kentucky Physicians Mutual, Inc., that there are some physicians, especially general practitioners, who have a misconception regarding the payment of benefits by the Blue Shield Plan to Doctors of Medicine who render services to its subscribers. There appears to be fairly wide-spread belief that it is necessary for services to be rendered in a hospital for the subscriber to be eligible to receive benefits. This is not true. Under the standard contract, the Plan pays exactly the same indemnity regardless of whether the service was rendered in the doctor's office, the patient's home, in a hospital, or at any other place. Payments set forth in the Schedule of Indemnities are made directly to the physician after he submits the "Physicians Service Report" describing the service rendered. The physician collects from the patient any difference between his customary fee and the indemnity paid by the Plan.

The physician is entitled to be paid for all cutting procedures performed on Blue Shield subscribers ranging from drainage of an abscess, suturing a laceration, or taking a biopsy, to the most lengthy and difficult operation. When a cutting operation is performed that is not included in the Schedule of Indemnities, an allowance is established by the Medical Advisory Committee, of which J. Duffy Hancock, M.D., Louisville, is chairman, and the physician is paid. Also covered are obstetrical services regardless of where the delivery occurs. Surgical procedures include the reduction and treatment of fractures and dislocations, treatment of burns, and radiation therapy of malignancies when used in lieu of surgery. The Plan also allows indemnities to physicians for X-ray examinations incident to accidents whether they are

made in the doctor's office or in a hospital. The Plan pays an indemnity for anesthesia regardless of where it is given.

When a Blue Shield subscriber carrying the medical rider is hospitalized for a non-surgical illness, his physician is entitled to be paid an allowance of \$5.00 for each day he visits his patient from the fourth to the twenty-eighth day of hospitalization.

It may be seen from the foregoing that there are many occasions when general practitioners may receive benefits from the Blue Shield Plan. This, too, we think is somewhat generally misunderstood.

While the Blue Shield Plan was sponsored by the profession primarily for the benefit of the people, it is, nevertheless, of great advantage to practicing physicians—general practitioners as well as surgeons and other specialists. Far from the least advantage that accrues to physicians from Blue Cross as well as Blue Shield is the fact that such a large part of the costs of expensive illnesses are paid by the Plans that the patient is usually able to pay the remainder without too much difficulty. It is consistently true that the percentage of collections of accounts on doctors' books are considerably higher in areas served by Blue Cross and Blue Shield.

The Blue Shield Plan is the "Doctor's Plan." It was altruistically conceived by the profession and deserves the support of every physician in Kentucky.

T. O. Meredith, M.D., Harrodsburg, president of Kentucky Physicians Mutual, Inc., urges all Kentucky physicians to familiarize themselves with the operation of the Blue Shield Plan and to write the Secretary at 620 South Third Street, Louisville 2, Kentucky, for any further information they may desire.

The average U. S. physician in private practice works a 58-hour week and sees 28 patients in a typical day, according to results of a recently ended nation-wide survey of its

134,000 physician readers by Medical Economics magazine. The survey shows that the physician's patient load has increased 12 per cent in the last four years.

"GOOD COMPANY IN A JOURNEY MAKES THE WAY TO SEEM SHORTER"*

While relationships between doctors of dentistry and medicine, or the organizations that represent the two professions have never been what might be described as unsatisfactory, it is noteworthy that committees and high-level officials representing both state associations in Kentucky have met and are working to foster even better inter-professional co-operation.

The committee representing the K.S.M.A., of which Thomas Crume, M.D., Owensboro, is chairman, carefully considered the many areas of possible co-operation between the two professions and came up with eight well-defined suggestions that were intended for consideration and implementation at the local level. At the time, it was admitted that in some localities part of these suggestions were already a matter of policy, and in other communities some of the suggestions might not be applicable.

The committee felt that these suggestions should have the approval of the Association as a whole before consulting with the sister profession concerning their value. So, they were presented to the Council and House of Delegates, where they received whole-hearted approval, and thus, became the policy of the Association.

Recently, when committees from the two associations met, A. P. Williams, D.D.S., Louisville, chairman of the K.S.D.A. group, commended the medical association on its efforts. He described the recommendations as "clear, practicable and constructive" and stated that the K.S.M.A. suggestions would be presented to the Dental profession at its 1953 annual session. (K.S.M.A. recommendations are listed in the Organization Section of this issue of the Journal).

When considering benefits to be derived from closer co-operation between doctors of dentistry and medicine, it im-

mediately becomes apparent that the chief beneficiaries of such co-operation are the patients of the two professions. This is, of course, as it should be.

It is quite obvious that concerted action by members of the two state associations and their local components, including joint presentation of scientific information in fields of common interest, will produce better service by both groups of practitioners to the patients each serves.

Organized efforts to foster the people's health and safety will be enhanced through closer dental-medical co-operation. Among these are the development of more effective civil defense organization, a wider participation in such activities as the diabetes detection drive, and acceleration of the rural health council movement in Kentucky. Equally important benefits can accrue from collaboration in the solution of local public health problems.

Many of the general public relations problems confronting the two professions are similar; some are identical. Joint exploration of these may well produce fruitful concordance at the local level. Certainly co-operative effort in urging full compliance with such citizenship obligations as registration and voting in each election is one example which has merit for both groups.

The mutual concern with legislative affairs, both state and national, is another area in which the dental and medical professions can work together closely for the public good. It is important that the positions maintained by both groups present a solid front where ever possible.

In view of all this, it is gratifying that the movement toward maximum harmony in inter-professional relations of Kentucky dentistry and medicine is proceeding apace with the needs.

*Izaak Walton.

The cases of 1,000 priority 3 physicians deferred for physical reasons are now up for review by army area surgeons in the United States as a result of new lowered physical standards, according to a recent A.M.A. Washington Letter. The armed services take the position that a physician able to conduct a private practice is fit for military service.

The American College of Chest Physicians will hold its 19th annual meeting at the Hotel New Yorker, New York City, May 28 to 31. The annual postgraduate course on diseases of the chest, sponsored jointly by the Council on Postgraduate Medical Education of the A.C.C.P. and the Laennec Society was conducted at Philadelphia March 23 to 27.

ORGANIZATION SECTION

Surgical Congress Names Louisville Surgeon President-Elect



Dr. Hancock

J. Duffy Hancock, M. D., Louisville, Kentucky State Medical Association president-elect, was named by the Southeastern Surgical Congress as its president-elect during the annual meeting of the Congress in Louisville, March 9 to 12.

Dr. Hancock will assume the presidency of the Congress which is made up of 12 states at its 1954 meeting in Birmingham, Alabama, and will succeed J. R. Young, M.D., Anderson, South Carolina, who was installed at the Louisville meeting.

The 1953 was one of the best attended annual meetings of the Congress on record, with a registration of 601 physicians, 117 wives, and 100 exhibitors. B. T. Beasley, M.D., Atlanta, secretary of the conference, announced.

Two K.S.M.A. surgeons participated in the scientific program. B. B. Baughman, M.D., Frankfort, and Lanier Lukins, M.D., Louisville, read papers.

Deadline for Receiving Scientific Exhibits Application Set

Elevation of the quality of scientific exhibits and stimulation of interest on the part of the Kentucky State Medical Association membership are the goals of the Committee on Scientific Exhibits for the 1954 Annual Meeting at the Columbia Auditorium in Louisville, September 22 to 24.

Everett L. Pirkey, M.D., Louisville, chairman, said his committee met March 4 and blue-printed plans for the coming session. The committee, he said, is particularly interested in having interested K.S.M.A. members and participants in the Scientific Assembly make application for space.

The deadline for making application for exhibit space is August 1, Dr. Pirkey stated, and assignments will be made immediately after that. Dr. Pirkey urged the prospective exhibitors to plan maximum usefulness of the space in order that more applications might be accepted. It was pointed out that space is somewhat limited.

Application for space and address to which it should be mailed will be found on page 176 of this issue of the Journal.

President Urges Tardy to Remit, Cites Membership Values

Members of the Kentucky State Medical Association who have overlooked paying their 1953 county, state and American Medical Association membership dues were reminded that if these dues were not remitted to their county society secretary on or before April 1, their annual subscription to the Journal of K.S.M.A. would expire with this issue, and under the Council ruling their names would be removed from the active roster of the Association.

"While the receipt by the headquarters office of state dues this year compares most favorably with other years," R. Haynes Barr, M.D., Owensboro, K.S.M.A. president, said, "we want to urge those who have neglected to send in their dues to do so as soon as convenient."

Failure to remit annual dues causes the physician to lose the malpractice defense service the Association provides and which members have found so valuable, Dr. Barr pointed out. In addition, professional liability companies will not renew their policies unless the insured is an active member of the medical society. Some companies have a provision that automatically cancels the policy when membership expires, it was stated.

"While any one of the above features taken singly are worth the cost of the annual dues, the really important issue is that of support of the goals of organized medicine. When a physician allows his dues to lapse, by so doing he indicates his lack of interest in the problems before his profession and the people it serves and his unwillingness to help solve them," the president said.

Dr. Lynn Heads 15-Member KSMA Placement Committee

Ralph D. Lynn, M.D., Elkton, who practices in the Third Councilor District, has been appointed chairman of the new Kentucky State Medical Association Physicians Placement Committee by R. Haynes Barr, M.D., president, Owensboro.

The committee was activated on the authorization of the Council at its last meeting and is

composed of a representative of each of the 15 councilor districts. The Council action specified that each councilor would nominate a representative from his district to serve on the committee.

"This committee is being set up to help the various communities in Kentucky who are in acute need of physicians to find a doctor. One of the most important functions of the committee will be to help those communities find replacements whose physicians have been called into the Armed Services," Dr. Barr said in making the announcement of the committee appointments.

In addition to Dr. Lynn, other members of the committee and the districts they represent are:

J. Ewing Dunn, M.D., Paducah, First District; F. Hays Threlkel, M.D., Owensboro, Second; Keith Crume, M.D., Bardstown, Fourth; G. L. Dyer, M.D., Buechel, Fifth; Jesse T. Funk, M.D., Bowling Green, Sixth; John T. Walsh, M.D., LaGrange, Seventh; Joseph H. Humpert, M.D., Covington, Eighth.

William Dye, M.D., Paris, Ninth; Allen E. Grimes, M.D., Lexington, Tenth; Thomas E. Averitt, M.D., Winchester, Eleventh; A. L. Cooper, M.D., Somerset, Twelfth; Paul E. Holbrook, M.D., Ashland, Thirteenth; Ralph Allen, M.D., Pikeville, Fourteenth; Charles B. Stacy, M.D., Pineville, Fifteenth.

Two Session Meeting Planned for 13th District, May 12

A symposium on peptic ulcer, a paper on the recent influenza epidemic, and an address by R. Haynes Barr, M.D., president of Kentucky State Medical Association, will be the program for the 13th Councilor District meeting scheduled for 4 p.m., Eastern Standard Time, Tuesday, May 12—a week later than originally planned—at the Henry Clay Hotel, Ashland, it has been announced by C. C. Sparks, M.D., Ashland, councilor.

Papers on peptic ulcer will be presented as follows at the beginning of the meeting: "Medical Management," by Philip Carter, M.D., and Forest F. Shely, M.D., Louisa; "Surgical Intervention," by M. D. Jarrad, M.D., Ashland; "X-Ray Diagnosis," by Leslie D. Urgan, M.D., and Farris L. Allen, M.D., Ashland; and "Pathological and Laboratory Aspects," by B. B. Holt, M.D., Ashland. The symposium will be followed by a dinner at 6:30 p.m. to which all physicians and their wives are invited.

The post-prandial meeting will hear a "Review of the Recent Epidemic of Influenza with Particular Reference to Complications and

Their Management," by Wendell V. Lyon, M.D., Ashland. The address by Dr. Barr will also be held following the dinner. Physicians' wives will meet separately from the councilor district meeting except during dinner.

The Boyd County Medical Society will act as hosts. Other counties in the 13th District are Carter, Elliott, Greenup, Lawrence, Lewis, Morgan, and Rowan.

Sixth District Meeting to be Held at Bowling Green April 28

Arrangements were completed and promotion begun more than two months ago to bring a large attendance to the Sixth Councilor District meeting, April 28, at Bowling Green, with 10 county societies and the Woman's Auxiliary participating, Councilor L. O. Toomey, M.D., Bowling Green, announced.

The Warren-Edmonson County Medical Society will be hosts at a 6 p.m. dinner and social hour in the Helm Hotel. J. Carter Moore, Jr., M.D., Franklin, district president, will preside; Richard F. Grise, M.D., Bowling Green, is secretary. Ladies of that Auxiliary simultaneously will entertain visiting wives at a dinner and program promoting the organization and activities of the Woman's Auxiliary to the Kentucky State Medical Association.

The District program, which will start at 7:30 p.m. will present "Ophthalmology in General Practice," fourth and final seminar in the K.S.M.A. sponsored series telephoned from the University of Louisville.

Other counties in the district include Adair, Allen, Barren, Butler, Cumberland, Metcalfe, and Simpson.

Rural Scholarship Board Ponders Growing Education Costs

Means of augmenting the Rural Kentucky Medical Scholarship Fund to keep it on a constant level of service were discussed at a meeting of 13 members and nine guests of the Fund's Board of Trustees, called at Louisville, February 19, by C. C. Howard, M.D., Glasgow, chairman.

With the maximum individual loan now increased from \$500 to \$800, current funds enabled only six of the 19 applicants for loans during the school year 1952-53 to receive assistance, it was reported. Assistance can be given again to six freshmen during the 1953-54 year, and, subsequently, under the present plan of repayment the number of annual loans

will necessarily be reduced.

The board reviewed the various avenues of approach that might stimulate communities to offer more desirable buildings to physicians seeking a location. It was voted to enlist the co-operation of other civic organizations and the press in an education program and to obtain architectural plans from Medical Economics magazine.

Locations where new physicians may be placed were approved for 1953 on the basis of data presented by R. F. Dixon, Louisville, executive secretary of the Fund.

Clark Bailey, M.D., Harlan, and J. B. Lukins, M.D., Louisville, were appointed to the Board, subject to approval by the Kentucky State Medical Association Council. Announcement was made of the re-election to the Board by the Council of R. Haynes Barr, M.D., Owensboro.

Ky. Surgical to Feature Dr. Elkin at French Lick, May 16

Daniel C. Elkin, M.D., chief of the Department of Surgery at Emory University School of Medicine and a native Kentuckian, will discuss "The Treatment of Arterial Embolism" at the annual meeting of the Kentucky Surgical Society as its guest speaker, Saturday, May 16, at the French Lick Springs Hotel, French Lick, Indiana.



Dr. Elkin

According to Francis M. Massie, M.D., Lexington, secretary of the society, who made the announcement, other participants and the subjects they will discuss on the scientific program are as follows:

Harvey Chenault, M.D., Lexington, "Management of Head Injuries."

Edward B. Mersch, M.D., Covington, "Wound Healing in Relation to Antibiotics."

W. H. Pennington, M.D., Lexington, "Cardiac Arrest."

James C. Drye, M.D., Louisville, "Heart Wounds."

Dr. Elkin, who was born in Louisville and who returned in 1951 as a distinguished guest essayist at the Centennial Meeting of the Kentucky State Medical Association, is former colonel in the Medical Corps and unit director of the 43rd General Hospital in 1941. "His chief contributions to surgery have been the organi-

zation of an excellent department at Emory University and notable advances in vascular surgery. He won the Matas Medal for vascular surgery in 1940 and the Legion of Merit in 1945," Dr. Massie said.

Elbert W. Jackson, M.D., Paducah, is president of the society, and W. Vinson Pierce, M.D., Covington, is president-elect. Charles A. Vance, M.D., Lexington, is chairman of the council. The society now has 78 active members, nine senior, and two honorary members.

"The society has received \$720 in voluntary subscriptions for the McDowell Home at Danville. This money was turned over to the home the first of March," Dr. Massie stated.

Dentist-Physician Relationships Discussed at Joint Session

A program designed to promote the continued improvement of dentist-physician relationships and public service was approved at a joint meeting of committees representing the Kentucky State Dental Association and the Kentucky State Medical Association at the Brown Hotel, Louisville, February 19. Thomas Crume, M.D., Owensboro, chairman of the K.S.M.A. committee, announced following the session.

A total of ten doctors, representing both professions, attended the luncheon meeting, at which the K.S.M.A. group was host. O. B. Coomer, D.D.S., Louisville, K.S.D.A. president, and R. Haynes Barr, M.D., Owensboro, K.S.M.A. president, were present and spoke to the group. A. P. Williams, D.D.S., Louisville, is chairman of the dental group.

The K.S.M.A. committee presented a group of eight suggestions, which, Dr. Crume pointed out, had been approved by the House of Delegates of the medical association as being possible areas in which the two associations might co-operate. It was explained that it was the intention of the K.S.M.A. committee that the two professions give consideration to implementation of these at the local level. It was also pointed out that in some communities many of the suggestions were already being practiced and in others some of them might not be applicable.

Dr. Williams, in commenting on the K.S.M.A. approach to the matter, said he felt that the recommendations were very clear, fair, and practicable. He said they would be presented to the K.S.D.A. annual meeting in April. The recommendations are:

(1) That county medical societies and dentists in the community have at least one joint scientific meeting every year in which matters

of mutual interest would be treated by a competent essayist.

(2) That some type of joint meeting (possibly including the wives and families of the physicians and dentists) of a social nature be held once a year.

(3) That physicians and dentists in the local community collaborate in the solving of local public health problems.

(4) That the dentists be asked to participate in all local Civil Defense plans.

(5) That the dentists be asked to participate and co-operate in the Diabetes Detection Drive held each November.

(6) That the dentists be asked to support the Rural Health Council movement and co-operate with the physicians in sponsoring and providing leadership for such efforts.

(7) That physicians and dentists unite their efforts in attempting to get all persons involved in health service, including their own families and employees, registered and see that they vote in each election.

(8) That the two professions explore areas in which they could co-operate in solving public relations problems that might exist at the local level.

Rural Health Council Formation Initiated in Daviess

Formation of the Owensboro-Daviess County Rural Health Council was initiated at a meeting sponsored February 16 by the Owensboro Chamber of Commerce committee on health, safety, and welfare.

R. Haynes Barr, M.D., Owensboro, presided at the meeting and was named chairman of the committee on constitution and by-laws. Other community leaders named to committees necessary to completion of the rural health council's organization included representation from the Farm Bureau, P.T.A. Council, Veterans of Foreign Wars, and other groups.

Walter L. O'Nan, M.D., Henderson, chairman of the Kentucky State Medical Association Committee on Rural Health, was the principal guest speaker. He emphasized that the success of local rural health councils depends on full voluntary co-operation by as broad a cross-section of the community as can possibly be developed.

The meeting was fully reported through a news story, with picture, in the Owensboro Inquirer.

KSMA House to Name Award Winners at Annual Session

Two awards will be made to members of the Kentucky State Medical Association, September 22 to 24, the recipients to be selected by the House of Delegates at its first meeting, the evening of Monday, September 21.

Top award is the K.S.M.A. Distinguished Service Medal, which has been presented each year since its inception in 1945. The other award is the new Outstanding General Practitioner Award which has been authorized by the Executive Committee of the Council in keeping with action of the House of Delegates at the 1952 meeting.

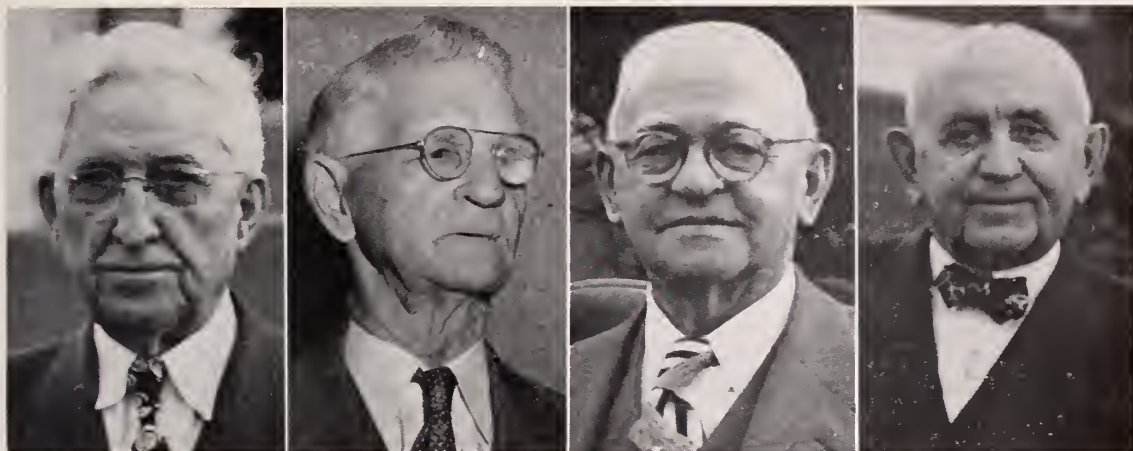
Any county medical society or member of the Association may certify nominations to the headquarters office, 620 South Third Street, Louisville. The nominations will be reviewed by the Council and final selection will be made by the House. Winner of the General Practitioner award will compete with other state winners for the annual American Medical Association Outstanding General Practitioner honor at the Annual Clinical Session early in December at St. Louis.

Seniors Hear KSMA Head Discuss Extra-Professional Duties

"The excellence of your scientific training will lose much of its value to you as a practicing physician unless it is coupled with application of a spirit of public service, kindness, and common courtesy in your dealings with patient, fellow practitioner, and the community at large," R. Haynes Barr, M.D., president of the Kentucky State Medical Association, told the senior class at the University of Louisville School of Medicine, March 9.

The meeting was held in the amphitheatre at Louisville General Hospital. Dr. Barr was introduced by J. Murray Kinsman, M.D., dean of the medical school, who had arranged the talk.

In the course of his talk and the question period which followed, Dr. Barr covered a wide range of topics including the relationship of the physician in active practice to his patient, colleague, voluntary insurance programs, his medical society and community civic activities. He stressed that in them all the doctor has an important role over and above mere excellence of scientific knowledge and skills if he is to occupy the place in society to which his background obligates him.



Physicians honored by citizenry March 10 at Morganfield are left to right: John W. Conway, M.D., Henry B. Allen, M.D., Herbert B. Stewart, M.D., and Casey B. Graves, M.D.

Union Co. Praises Four MDs Whose Practice Totals 200 Years

Four physicians who made history while quietly and simultaneously serving the population of Union County for an average of 50 years, or a combined total of 200, were the center of a celebration by the community on March 10 at Morganfield.

The physicians honored were John W. Conway, M. D., 81, Henry B. Allen, M. D., 79, Herbert B. Stewart, M. D., 79, and Casey B. Graves, M. D., 78, who have delivered enough babies to populate Morganfield and three nearby towns and are still on the job. A capacity crowd of 200 attended the affair, a dinner in the town's American Legion Hut, with the Morganfield Lions Club handling arrangements, assisted by the Uniontown Homemakers Club, it was reported by Alfred W. Andreasen, M. D., secretary of the Union County Medical Society.

Principal speaker of the evening was R. Haynes Barr, M. D., Owensboro, president of the Kentucky State Medical Association, who congratulated the veteran physicians on their many years of devoted service, study, and case reports, especially under earlier, more primitive conditions, which paved the way for less hampered scientific study and the aids that facilitate medical practice today.

Among other speakers was Bruce Underwood, M. D., secretary and general manager of K.S.M.A. and State Commissioner of Health, who formerly did general practice in Union County. He spoke of the code of ethics by which these men lived and likened it to the fundamentals of the Great Physician in the Bible.

The guests of honor were surprised by a num-

ber of presentations. These included plaques from the Lions Club, honorary life membership certificates in the club presented by the district governor of Lions Clubs, commissions as Kentucky Colonels, and a number of gifts from the local citizens.

A response to the recognition was made by each of the four doctors who reminisced on some of their experiences.

Dr. Conway first began his practice at Hanshaw in 1898, later moved to Spring Grove and then to Morganfield. He recently delivered three babies in one day. Dr. Allen has practiced without even one day vacation since 1903 and always in Morganfield. He comes of a family of physicians—father, grandfather, and uncle.

Dr. Stewart started practice at Spring Grove in 1905 and later moved to Morganfield. He formerly taught school for 10 years to save money to study medicine. His father, too, was a physician. Dr. Graves has practiced at least 47 years and in addition to his regular practice served as county coroner for 20 years. Another record is his 40-year span as a Baptist deacon.

Blue Shield Plan Holds Training Seminars for Secretaries

Training seminars for doctors' secretaries have been scheduled by Kentucky Physicians Mutual, Inc., the Blue Shield Plan, for March and April. Nine such seminars throughout the state will be held.

The meetings are designed to teach the secretary how she may foster good doctor-patient relations and promote voluntary health plans by giving her a better understanding of the Blue Shield plan and its operation. It is antici-

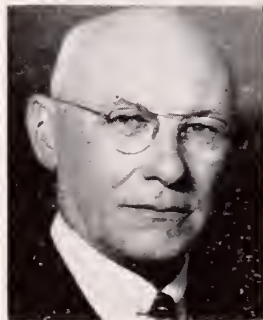
pated by the sponsors that the portion of the seminar devoted to Blue Shield forms will increase the secretary's efficiency so as to conserve time and effort and get prompt payment for the physician.

R. Haynes Barr M.D., president of K.S.M.A. and J. Duffy Hancock, M.D., president-elect of K.S.M.A., have been co-operating closely in sponsorship of the training sessions. The program is being handled by Ros W. Harrison, Blue Shield and Blue Cross public service director, and J. Ray Ingram, Blue Cross and Blue Shield assistant director, both of Louisville.

Mr. Harrison announced at the beginning of the series that all doctors would be advised by mail of meetings in their area. The schedule of meetings follows: March 6, Lexington; March 9, Harrodsburg; March 13, Covington; March 17, Bowling Green; March 18, Madisonville; March 20, Paducah; April 8, Middlesboro; April 9, Hazard, and April 5, Louisville.

Officers Conference Sets Pattern for MD Leadership

Officers of the county medical societies, district councilors, members and friends of organized medicine met in Louisville, March 5, for a packed day-long program on the physician's relations with patient, hospital, press, legislature, community, and his colleagues.



Dr. Hess

A workable philosophy on medical economics was presented by Elmer Hess, M. D., Erie, Pennsylvania, A.M.A. chairman on Medical Service. No monetary value can be established in "catastrophic illness," he said.

In his own clinic he permits the patients to evaluate such service. He told how the doctor can relieve the financial strain on the patient by placing more diagnostic emphasis on clinical histories and physical examinations. "The high cost of medical care is not the high cost of the fee. It's the high cost of the extras we demand at the hospital," Dr. Hess stated.

Reviewing abuses of the Blue Cross-Blue Shield plan, Eldon Baumgarten, M. D., Detroit, member of the executive committee of Blue Cross and Blue Shield, cited findings in a recent hospital study that showed, 1,700 hospital days were misused for one month—one-sixth the hospital capacity. With the physician as the energizing factor in hospital care, it be-

hooves him to guide the plan toward its sole objective: To assure the average American and his family adequate hospital and medical care at a price they can afford, Dr. Baumgarten said. Do this, and other benefits to the community and to his profession will follow.

Edmund K. Yantes, M.D., Wilmington, Ohio, told how a once-dead, misunderstood and misunderstanding medical society in the now famed Clinton County was stimulated to assume its proper stature as a dominant factor in community health.

Julian Price, M.D., Florence, South Carolina, stressed the moral and spiritual leadership the doctor must exercise in community relations. Aubrey Gates, field director, A.M.A. Council on Rural Health, gave an argument favoring support of county rural health councils. He spoke of these as lay groups through which Medicine needs to present facts if it is to survive as a free profession, just as the individual must inform a lay jury and a lay defense were he to be tried on a malpractice charge.

The physician must give some of his time explaining the issues upon which he is the best informed to legislators and newsmen alike if good legislation and an understanding press are to be had. This point was made by both State Senator Louis Cox, Frankfort, who appraised medical legislative programs, and several Kentucky newsmen who appeared in a panel "Doctors Meet the Press."

W. Vinson Pierce, M.D., Covington, chairman of the K.S.M.A. Education Campaign Committee, summarized the services available by the field secretary. He pointed out that the K.S.M.A. field secretary exists to help the county medical societies by bringing the headquarters office into the field and urged officers to make full use of these services. It was also pointed out that Association officers and staff will co-operate in helping county societies hold meetings devoted to socio-economic subjects.

Bruce Underwood, M.D., Louisville, secretary and general manager, welcomed participants and guests on behalf of K.S.M.A. and briefly reviewed recent developments in the work of the state association.

R. Haynes Barr, M.D., Owensboro, president, presided at the morning session, and J. Duffy Hancock, M.D., Louisville, president-elect, presided at the afternoon session. Clyde C. Sparks, M.D., Ashland, chairman of the Council, moderated a discussion at the morning session, and J. Farra Van Meter, M.D., Lexington was moderator at an afternoon discussion.

Peter Overstreet, president of the University of Louisville chapter of the Student A.M.A.,

and Charles McGaff, member of the Student A.M.A. national Executive Council and University of Louisville senior, both of Louisville, attended the conference as guests of the Association. Both expressed satisfaction with the conference and commented that what they had learned emphasized the need and importance of having an active Student A.M.A. in each medical school and the contributions such activities can make to the future of organized medicine.

Sorry, No Pictures!

The staff of the Journal regrets the necessity of stating that none of the pictures taken at the County Society Officers on March 5 for use in the Journal were usable. This situation grew out of an equipment failure.

Loan Fund for New MDs Established by Gift to Jewish Hospital

A loan fund has been made available to young physicians entering private practice through an anonymous gift of \$5,000 to Jewish Hospital, Louisville.

The fund will be administered by a committee of the hospital's board of trustees with considerable freedom under the provisions of the gift. The only stipulations are that loans be limited preferably to \$2,000 per applicant, that they be interest-free, and that interns be selected from any race or creed in any Louisville hospital, but with preference for interns from Jewish Hospital.

The gift was received on January 30, and the first application was received in less than a month. Further details on administration of the fund will be available later.

Rural Health Improved by Self-Help '53 Conference Told

Kentucky people themselves can do much to elevate further their community and individual health through application of good nutritional principles, proper care of farm animals, and other non-medical activities basic to good living, according to the speakers who talked to over 260 persons at the Second Annual Kentucky Rural Health Conference in Louisville, March 11 and 12.

Farmers, farm women, educators, parents, dentists, nurses, public health workers, physicians, and other groups from 71 Kentucky counties heard four out-of-state speakers and over 20 Kentucky leaders discuss how local

rural health councils can function to foster better health in each community.

Frank W. Peck, Chicago, managing director of The Farm Foundation, in his address at the banquet meeting emphasized the importance of voluntary co-operation by laymen and professional people in the solution of each community's peculiar health problems. He emphasized that there are many ways in which the non-medically trained person, working through such organizations as the local rural health council, can promote living conditions in the community and home which will eliminate many of the health problems which now burden the dentist, nurse, and physician.

Other out-of-state participants in the program included R. C. Klussendorf, D.V.M., of Commercial Solvents Corporation, Terre Haute, former executive secretary of the American Veterinary Medical Association; Donald A. Dukelow, M.D., Chicago, consultant to the American Medical Association Bureau of Health Education, and Aubrey Gates, field director, A.M.A. Council on Rural Health.

Members of Kentucky State Medical Association who appeared as speakers in the conference were R. Haynes Barr, M.D., Owensboro, president; C. C. Howard, M.D., Glasgow, chairman of the Rural Scholarship Fund Committee, and Walter L. O'Nan, M.D., Henderson, chairman of the Committee on Rural Health, who acted as general chairman for the conference.

New Cerebral Palsy Program Discussed

Establishment of a cerebral palsy section in the Division of Maternal and Child Health of the Kentucky State Department of Health was discussed in a meeting, February 20, of officials of the Kentucky chapter of the United Cerebral Palsy Association and the Department of Health with the Kentucky Crippled Children Commission and representatives of other interested groups.

The new section would assist in a survey of the prevalence of cerebral palsy in Kentucky and in an expanded educational program. Formation of a Co-ordinating Council on Cerebral Palsy is contemplated after disclosure of the findings of the State Legislative Committee who made a study of cerebral palsy in Kentucky under direction of the 1952 General Assembly, it was announced by Bruce Underwood, M.D., Louisville, secretary and general manager of the Kentucky State Medical Association and State Commissioner of Health.

U of L Medical Technology School Gets ASCP Approval

A course in medical technology offered at the University of Louisville School of Medicine was recently approved by the Council on Medical Education and Hospitals of the American Medical Association after inspection by the American Society of Clinical Pathologists.

The first class at the School will complete its course in August, 1953. Teachers are members of the School of Medicine faculty, and technic instructors are technicians in three affiliated hospitals.

Requirements for admission are 60 semester hours college work including special science subjects. A Certificate of Medical Technology is conferred on completion of the 12 months training course; and if trainee has completed three years college work at the University of Louisville, the degree Bachelor of Science in Medical Technology is also conferred. Certificate holders are eligible for examination by the Board of Certification, American Society of Clinical Pathologists.

Further information may be obtained by writing A. J. Miller, M.D., director, Medical Technology, School of Medicine, 101 West Chestnut Street, Louisville 2.

New Doctor Draft Laws Pondered: AMA Announces Position

Kentucky physicians are carefully watching developments in Washington relative to legislation that will replace the present "Doctor Draft" laws which will expire on June 30, 1953.

So far, according to A. Clayton McCarty, chairman of the Kentucky Advisory Committee to Selective Service, high government and armed service officials have been unable to agree on how these laws will be extended.

Dr. McCarty has told Kentucky State Medical Association officials that according to reliable Washington sources, there will probably be enough men in Priorities I and II and men in Priority III under 36 to fill needs of the military until June 30.

Representatives of the American Medical Association have been following the drafting of this new legislation carefully and have announced its position on it as follows:

"(1) Any proposed legislation should specifically extend the primary obligation of physicians now classified in Priorities I and II who are not called into service before July 1, 1953.

"(2) An amendment should be suggested to the basic Selective Service Act which would obligate physicians covered by the basic Act for military service without permitting deferments because of dependency or marital status.

"(3) The Association should advocate adoption of legislation to provide for the recognition of military service since September 1, 1939, with countries which were allies of the U. S.

"(4) The present maximum age—registration, age 50; obligation to serve, age 51—should be preserved.

"(5) The present law should be amended to require registration of physicians under age 50, who do not have reserve commissions in the armed services medical corps.

"(6) Physicians who have not served since September 16, 1940, should be called according to age—youngest men first—after physicians currently classified in Priorities I and II have been called up or deferred for reasons of essentiality or physical disability.

"(7) Physicians with military service since September 16, 1940, should be called according to past service—those with the least amount of service first—after physicians currently classified in Priorities I, II, and III are called up or deferred for reasons of essentiality or physical disability.

"(8) No distinction should be made between service in World War II and service since June, 1950.

"(9) The present concept of deferring physicians regardless of their priority classification if they are essential to the national health, safety, or interest should be continued.

"(10) Legislative authority to establish national and state medical advisory committees to the Selective Service System should be continued.

"(11) Any extension of the doctor draft law should be limited to one year.

"(12) In an effort to insure a more equitable utilization of medical manpower by the armed services, the Association recommends the establishment of a new position as Assistant Secretary of Defense for Health Affairs. It appears that the proper way to provide for this would be by an amendment to the National Security Act of 1947, as amended.

"It was also recommended that a lesser period of service be established for those physicians who had at least 12 months of prior military duty since September 16, 1940."

GP's Gather at Louisville, Apr. 22

Plans have been completed for the two-day annual meeting of the Kentucky Chapter of the American Academy of General Practice, opening Wednesday, April 22, at the Brown Hotel, Louisville.

Scientific talks by five guest speakers, a presentation by the faculty of the University of Louisville School of Medicine, and a dinner meeting constitute the program. The sessions are open to all physicians of Kentucky and surrounding states, and academy members will receive ten hours credit for attendance at all scientific portions.

Louisville Host to Technologists

The American Society of Medical Technologists will hold its 21st annual convention at the Brown Hotel in Louisville, June 14 to 18, according to Miss Mary Benedict Clark, Louisville, general chairman.

An announcement that over 20 guest speakers will take part in the scientific sessions has been made by Sr. Mary Simeonette, Louisville, program chairman. Members of the society will present 12 papers.

Blood Donations Demand Hiked

A new appeal for blood donations to save lives has been issued by the Office of Defense Mobilization to the 60 million Americans who, in the age bracket 21 to 59, of good health, and weighing 110 pounds or more, are eligible to give their blood.

Recruitment must be sharply stepped up to meet the additional blood requirements for the new gamma globulin program, according to O. D. M.

Pediatricians to Hear Pathologist

Edith Potter, M. D., associate professor of pathology, Department of Obstetrics and Gynecology, University of Chicago, and pathologist for Chicago Lying-in Hospital, will address the fourth annual meeting of the Kentucky Society for the Advancement of Pediatrics, Friday, April 24, at the Pendennis Club, Louisville, on the subject "The Importance of Post-mortem Examination in Establishing the Cause of Fetal and Neonatal Deaths."

The meeting is scheduled for 4 p. m. until 9:30 p. m. All physicians interested in the health of children have been extended an in-

itation to become members of the society. Its 1953 officers are James W. Bruce, M. D., president, Carl Wheeler, M.D., vice-president, and Cathryn C. Handelman, M.D., secretary-treasurer.

Student MDs See Propaganda Film

Students of the University of Louisville School of Medicine were given an opportunity to see the motion picture "Without Fear" at two showings arranged by the Louisville chapter of the Student American Medical Association through its president, Peter A. Overstreet, March 4 and 6.

The film, prepared as socialized medicine propaganda by the California Machinists International, was also shown before the Kentucky State Medical Association County Society Officers Conference. Two showings at the university were necessary so that members of all four classes would be able to view the motion picture.

Kentucky OB-GYN to Meet Apr. 25

"Recent Advances in Obstetrics and Gynecology" will be the title of an address by J. P. Greenhill, M.D., Chicago, editor of the specialty's Year Book and guest speaker at the annual meeting of the Kentucky Obstetrical and Gynecological Society, Saturday, April 25, at the Brown Hotel, Louisville.

"A cordial invitation is extended to interested physicians throughout the state to attend, and particularly general practitioners," stated George McClure, M.D., Danville, secretary of the society.

Polio Nursing Study Starts May 11

May 11 has been set for the opening of the eight-day week conference at the Children's Hospital and the Louisville General Hospital on poliomyelitis nursing, according to Miss Marie Goik, president of the Kentucky League for Nursing, which is co-sponsor of the conference along with the National League for Nursing.

This is one of 12 such conferences being held over the nation. Miss Goik said. Attendance will be limited to 40 and will be accepted from Wisconsin, Michigan, Illinois, Ohio, Indiana, and Kentucky. During the last two days of the course, the conference will be open to hospital administrators, directors of nursing schools and nursing services so that the entire field of polio nursing can be explored.

Nat'l Body Meets on Rural Health

Representatives from medical, agricultural, and community groups in 42 states, attending the A.M.A. sponsored eighth National Conference on Rural Health in Roanoke, Virginia, February 27 and 28, heard reports that medical care facilities in rural areas are increasing rapidly through co-operative voluntary efforts.

Among the Kentuckians present at the conference were Walter L. O'Nan, M.D., Henderson, and D. G. Miller, Jr., M.D., Morgantown. A total of more than 600 persons attended the conference.

New KSMA Members Welcomed

The Association is pleased to welcome the following new members:

Barren—Everett Davis, Glasgow.

Fayette—Champ Ligon, Lexington.

Harlan—Herbert W. Collins and C. H. Dabbs, Lynch; William N. Smith and Sanford L. Weiles, Harlan.

Hickman—M. E. Arnold, Clinton.

Jefferson—Donald K. Bailey and Harold C. Morris, Louisville.

Union—C. P. Bartley, Morganfield.

News Items

Herbert M. Bertram, Jr., M.D., Vanceburg, recently opened an office in Portsmouth, Ohio, and will divide his practice between Vanceburg and Portsmouth. Dr. Bertram graduated from the University of Louisville School of Medicine in 1943 and interned at Good Samaritan Hospital, Lexington.

Arch B. Clark, M.D., has moved to Louisville where he is affiliated with the Children's Hospital. He graduated in 1949 from the University of Louisville School of Medicine and interned at the Charity Hospital, New Orleans. Before going to Louisville, he practiced medicine in McKee.

Eddie F. Crocker, M.D., recently entered the general practice of medicine at Haws Memorial Hospital, Fulton. Graduating in 1951 from the University of Tennessee College of Medicine, Dr. Crocker served an internship at the Baptist Memorial Hospital in Memphis.

W. B. Davis, M.D., Louisville, was the principal speaker at a meeting of the Ashland Heart Association February 27. The meeting, which was held at the Ashland Power Company audi-

torium, was part of the final phase in Ashland's heart fund drive for 1953.

Edgar W. Northcutt, M.D., Covington, returned last month from a six-weeks tour of South American countries. Dr. Northcutt attended the meeting of the American College of Surgeons held in Buenos Aires.

Cathryn C. Vaden, M.D., has returned to Liberty to practice her profession. For the past year she has been with the Somerset Clinic at Somerset. Dr. Vaden is a 1950 graduate of the University of Tennessee College of Medicine. She served her internship at Jefferson Hillman Hospital, Birmingham, Alabama.

F. Buerk Zimmerman, M.D., has re-established an office in the Francis Building, Louisville, for the practice of ophthalmology and otolaryngology. He came to Louisville from Maysville, where he has practiced his specialty since 1951. Dr. Zimmerman graduated in 1933 from the University of Louisville School of Medicine. He is a fellow in the American College of Surgeons.

President's Page

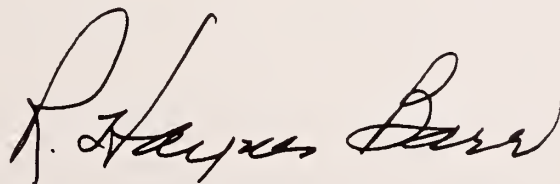
Utilization of one county medical society meeting each year for a program on socio-economics and activities of organized medicine was one of the most potentially valuable recommendations made at the recent Kentucky State Medical Association County Society Officers Conference.

As it has become increasingly necessary for physicians to interest themselves in matters related to medical care, but not directly concerned with practice of the healing arts, the problem of keeping the individual doctor adequately informed about organized medicine's role in his future has grown.

It is vital to our future, as a profession and as individuals, that every physician have an opportunity to know what your Association is doing and the problems it endeavors to help us solve. Nothing can do more to insure such understanding than allocation of society meetings in each county to these subjects.

K.S.M.A., through its officers and headquarters staff, will be happy to provide speakers for such programs. This will be done on request. Your county society may want one single meeting each year for this purpose, or it may prefer to devote a part of several programs to this informational activity.

Your county medical society is urged to provide such an opportunity now to its members for getting answers to questions they may have about the Association's activities and their relationship to the problems confronting us.



PRESIDENT

APPLICATION

FOR SPACE IN THE SCIENTIFIC EXHIBIT

1953 Annual Meeting Kentucky State Medical Association

Columbia Auditorium Louisville, Kentucky September 22, 23, 24

Fill Out and Mail to:

EVERETT L. PIRKEY, M. D., *Chairman*
Committee on Scientific Exhibits
 Louisville General Hospital,
 Louisville 2, Kentucky

1. Title of Exhibit:
 2. Description or nature of exhibit: (Attach brief description to this blank).
 3. Will you require shelf space?
 4. Give approximate amount of wall space needed. (Included in total space is two side walls of two feet in length)
 5. Name of institution co-operating in the exhibit (if desired)
 6. Name of exhibitor:
- (Street & No.) (City)

(Deadline for mailing application August 1, 1953)

The Kentucky State Medical Association will provide without cost to the exhibitor the following: Exhibit space, shelves, sign for booth, current, bracket lights. . . . provided all items are approved in advance by the committee.

Cost of transporting exhibits to the meeting must be borne by the individual exhibitor as well as costs of cards, signs, etc., which are a part of the exhibit.

View boxes, furniture, decorations, etc., may be rented, if desired, by applying directly to Jos. T. Griffin Company, 704 West Main Street, Louisville 2, who supply equipment for the annual K.S.M.A. meeting.

County Society Reports

JEFFERSON

The Jefferson County Medical Society met January 19, 1953. There were 87 members present for the dinner and 30 additional attended the business meeting.

The meeting was called to order by Dr. R. R. Slucher, president, and minutes were read and approved.

An election was held with written ballots after nominations were closed with none made from the floor. The President read the results at the end of the meeting.

It was moved by Dr. Karl Winter that the Society employ an executive secretary. Dr. Lawrence Minish, Dr. Slucher, in his address as retiring president, and Dr. E. L. Shiflett spoke in favor of the motion, emphasizing the urgency in employing an executive secretary and the advantages such a move would bring. The motion carried unanimously.

Dr. Alice Wakefield, chairman, Special Committee on Physicians Exchange, read a report recommending that the committee be discharged. A motion made to that effect carried.

Annual reports were made by the following and accepted: Judicial Council, Treasurer, Executive Committee, and Committees on Membership, Necrology, Professional Service, and Program.

The remaining annual reports, the President stated had been approved by the Executive Committee and filed.

Dr. J. R. Hendon gave the report of the Public Relations Committee, which was accepted.

Rudolf J. Noer, M.D., and Harvey R. St. Clair, M.D., were elected to active membership.

Dr. Slucher introduced the new President, Dr. Arthur T. Hurst and the President-Elect, who both spoke briefly.

Officers elected at the meeting are: Doctors David M. Cox, president-elect; C. Melvin Bernhard, first vice-president; Houston W. Shaw, second vice-president; John S. Llewellyn, secretary; Alfred O. Miller, treasurer.

Members of the Judicial Council: Doctors Thomas VanZandt Gudex, Jennings B. Marshall, and Malcom D. Thompson.

Delegates to the Kentucky State Medical Association: Doctors C. Victor Atherton, William H. Bizot, William A. Blodgett, Morgan R. Colbert, Daniel G. Costigan, James B. Douglas, and Gordon L. Green. Doctors Robertson O. Joplin, Eugene H. Kremer, Jr., Paul Mapother, George B. Sanders, Stanley T. Simmons and Karl D. Winter.

Alternate delegates: Doctors Herbert L. Clay, Jr., Charles H. Maguire, H. Lester Reed, James E. Ryan, L. H. Segerberg, and John D. Tra-
wick, Jr.

Robert C. Long, M. D.
Retiring Secretary.

McCRACKEN

The McCracken County Medical Society held its monthly dinner meeting February 25, 1953, at the Ritz Hotel, Paducah. The meeting was called to order by Dr. George H. Widener at 7:30 p.m.

A scientific program was conducted by Dr. Morris M. Weiss, Louisville, who addressed the group on "Cardiac Emergencies." A discussion followed.

Dr. Harry Abell, Jr., was admitted to the McCracken County Medical Society by unanimous vote.

Dr. Eugene Sloan and Dr. George Widener opened a discussion concerning the solution for needed emergency medical care in the local community.

It was moved that a committee be appointed to study the situation with regard to the area to be served and the legal entanglements that would evolve. It was further moved that the committee be given authority to institute a system or plan of emergency medical care acceptable to them and a telephone switchboard be installed at the fire station for reception of calls at the expense of the society. Carried.

M. W. Fowler, Jr., M.D., Secretary

MUHLENBERG

The Muhlenberg County Medical Society met February 6, 1953. Members present were Doctors Frank A. Bechtel, Gaithel L. Simpson, Harry H. Hartleb, Claude Wilson, Foster M. Wilson, George F. Brockman, and Hylan H. Woodson, Jr.

The meeting was called to order by the president, Dr. Bechtel.

Under old business considerable discussion was devoted to the excellence of the seminars telephoned by the Kentucky State Medical Association. It was suggested that the Association be advised of the possibility of disseminating these to the smaller groups in the state as tape recordings. This was predicated on an analysis that showed the Society's major expense was payments to the telephone company.

Under new business Dr. Bechtel requested instructions on the endorsement by the Society of the blood collection program of the American Red Cross. He advised that the Society approve the program.

Attention was called to the work done by the Mental Hygiene Division of the Kentucky State Department of Health. In the general discussion that followed, the needs of this type work were reviewed. For a more accurate understanding of the function of this division, the Secretary was instructed to correspond with the division to secure additional information on plans, policies, and facilities.

G. F. Brockman, M.D., Secretary

SCOTT

The Scott County Medical Society met February 5, 1953, at the John Graves Ford Memorial Hospital in Georgetown. The following members were present:

Doctors F. W. Wilt, H. G. Wells, W. S. Allphin, A. F. Smith, E. C. Barlow, and H. V. Johnson.

It was moved that the Society recommend the use of sodium fluoride in the City Water System. The motion carried.

It was moved and carried that the Society recommend to the city and county schools that they discontinue the sale of candy, chewing gum, and other sweets.

The meeting was adjourned until the first Thursday in March.

H. V. Johnson, Secretary.

SCOTT

The Scott County Medical Society met on March 5, 1953, at the John Graves Ford Memorial Hospital in Georgetown. The following members attended:

Doctors F. W. Wilt, H. G. Wells, W. S. Allphin, A. F. Smith, E. C. Barlow, and H. V. Johnson.

Dr. Rufus Alley of Lexington and Dr. Chester R. Lewis of Louisville were guests of the Society.

A resolution was read from the Erie County, New York, Society in regard to the Doctor-Draft Law. It was moved by Dr. Johnson and seconded by Dr. Smith that we endorse the resolution. Carried.

Dr. Alley read an interesting paper on "Infection and Cancer of the Lower Bowel" emphasizing the importance of careful examination of these patients. The Society gave a vote of thanks to Dr. Alley for his visit to the Society.

The Society instructed the Secretary to write to Dr. C. C. Howard of Glasgow, giving him full information on the medical situation in Scott County.

H. V. Johnson, M.D., Secretary

UNION

The Union County Medico-Dental Society met February 17, at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M.D., president.

E. V. Bargo, Jr., D.M.D., continued his previous talk on water fluoridation. He reviewed results in other cities where examinations were made to determine percentage of natural fluorine content of some water supplies where a great reduction in tooth decay was noted.

From the standpoint of medical and dental findings no dangerous conditions were found, there being no chance of excessive fluorine by mechanical means. It was noted that cities with a natural high content of fluorine in the water had no ill effect on the people.

Guest speaker for the evening was B. M. Drake, M.D., deputy commissioner of Preventive Medical Services, from the state department of health.

Dr. Drake spoke on the various phases of preventive medicine in public health such as those involved in home accidents, cancer, tuberculosis, and rabies control, and veterinarian public health.

A. W. Andreasen, M.D., Secretary-Treasurer

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met on February 24, 1953, with President W. R. McCormack, M.D., presiding. The following items of business were disposed of:

1. Members were urged to pay their dues of \$100, and payment of some \$87 dollars in back dues was asked.

2. A letter was read from the Warren County Judge for recommendations with emphasis on the priority of the various buildings and operations in which both the county and the physicians are interested. Dr. Travis B. Pugh, Dr. J. T. Gilbert, and Dr. R. O. C. Green were appointed as a committee to make a survey and report their recommendations back to the society to be passed on to the County Judge and the fiscal court.

3. A motion was passed that the secretary write to the County Dental Society, to the Mayor, the Board of Public Works, and the

Inhibition of Excess Parasympathetic Stimuli in Peptic Ulcer with Banthine®

Medical literature now contains more than 200 references to the beneficial role of Banthine Bromide (brand of methantheline bromide) as evidenced by a marked healing response of peptic ulcers. Rapid symptomatic improvement, particularly with reference to pain relief, is followed by roentgenographic demonstration of crater filling.

The therapeutic action of the drug in decreasing hypermotility and hyperacidity, together with the remarkable early subjective

benefit, is indeed a desired approach in ulcer management.

Treatment is individualized to the patient's needs. One or two tablets (50 to 100 mg.) is administered every six hours, around the clock, in conjunction with appropriate diet control and antacid medication as indicated.

Banthine is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Searle: Research in the Service of Medicine.

Ulcer Facies Composite



COUNTY SOCIETY REPORTS

(Continued from p. 177)

Parent-Teacher Association of Bowling Green to encourage the fluorination of water as an aid to prevention of dental caries.

4. A discussion of the current policy regarding the treatment and control of communicable diseases was given by Dr. George M. Wells, and the members were given an outline of this policy.

5. A motion was passed that the County Medical Society defray the expenses of medical movies being shown at the hospital upon presentation of the bill to the treasurer.

6. It was urged by Dr. L. O. Toomey, counselor, that the president and the secretary of the County Society be present at Louisville March 5 for the meeting of the County Officers throughout the state. Dr. Toomey also urged that members of the Rural Health Committee attend the Rural Health Conference on March 11 and 12 in Louisville.

Program for the evening was the seminar on "The Significance of Cough," telephoned through the state association from Louisville. A discussion of the program by Dr. Harold Keen, Dr. Dan B. McIlvoy, and Dr. Charles M. Francis followed.

Charles M. Francis, M.D., Secretary-Treasurer

BULWARKS

(Continued from p. 161)

God and Liberty

Benjamin Franklin called upon Voltaire one day and took his 17-year old son with him. As they parted Franklin asked Voltaire to bless the boy. Now, Voltaire was not supposed to be religious, probably quite the opposite. Nevertheless, Voltaire put his aged hands on the young man's head and said "My son, God and Liberty. God and Liberty. Remember those words." That needs to be said over and over again in America. Neither is possible without the other. If we do not cure our heart's disease, which is largely caused by the lack of one of these, God, we will surely lose the other, liberty.

The Seventh Annual Rocky Mountain Cancer Conference will be held in Denver on July 8 and 9. As in previous years there will be eight outstanding guest speakers, and on the first evening a banquet and entertainment for both the doctors and their ladies. There is no registration fee for this conference.

In Memoriam

WALLER OVERTON BULLOCK, M. D.

Lexington

1875 - 1953



Dr. Waller Overton Bullock, Lexington, died suddenly on January 23, 1953, while sitting in the library of the Lexington Clinic.

He was born in 1875 in Lexington, the oldest son of Dr. Waller Bullock, Sr., a distinguished Lexington physician. He was graduated from the University of Virginia Medical School in 1896 and served two terms there as assistant in the department of anatomy. Subsequently he served an internship in the old Polyclinic Hospital, Philadelphia.

In 1899 Dr. Bullock returned to Lexington and entered the practice of surgery, pioneering in Kentucky in the surgery of post-traumatic aneurisms. He was also the state's first surgeon to operate on the thyroid gland.

In 1913 he joined the late Doctors David and Woolfolk Barrow, father and son, in a surgical partnership that later resulted in the organization by Dr. David Barrow of the Lexington Clinic.

Dr. Bullock served as a major during World War I in Dr. Barrow's unit, Base Hospital 40, in England and later was transferred to a more active service in France. In the high mortality epidemic in 1918 he was one of the first to observe and publish that repeated chest aspiration was a safer procedure than rib resection and open chest drainage.

Transylvania University in 1923 conferred on him the honorary degree of Doctor of Science, chiefly in recognition of his splendid monograph on the life of Benjamin Winslow Dudley in his relation to the Transylvania medical school.

After World War I he served for 25 to 30 years on the surgical staffs of both local hospitals, and for 20 years was both chief surgeon of the Lexington Clinic and an active member of the Lexington Board of Health.

At the age of 60 he discovered to his surprise a hidden talent in sculpture, which he exercised with considerable pleasure and recognition.



It had to be good
to get where it is



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

The Fayette County Medical Society in paying him tribute said that in his retirement his undying interest brought him repeatedly to the operating room, still the inspiration he had been during his working life. In training others he was remembered as firm, exacting, and fair, always willing to accept responsibility with never a word to patient or family that would place blame on a younger associate.

The Society has given him the epitaph, spoken by Plato on the death of Socrates: "Such was the end, Echecrates, of our friend; concerning whom I may truly say, that of all the men of his time whom I have known, he was the wisest and justest and best."

ROBERT HUGHES HERNDON, M.D.

Ft. Mitchell

1872 - 1952

Dr. Robert Hughes Herndon, Ft. Mitchell, died on October 4, 1952, of a stroke after a short illness.

Born in Kenton County in 1872, he attended school at Walton. He managed his family's farm between the time he finished school and entered medical school at Miami Medical College, Cincinnati, from which he was graduated in 1902 as president of his class.

Dr. Herndon began his practice in Ludlow in 1902, the first physician to locate there. In 1914 he moved to Ft. Mitchell and practiced actively until his health became poor. Despite his health, however, he returned to practice during the World War II emergency, and until shortly before his death was doing general practice for his old patients.

CHARLES P. COOGLE, M. D.

Houston, Texas

1881 - 1953

Dr. Charles P. Coogle, 72, died recently in Houston, Texas, where he has lived since his retirement.

He was a native of Jefferson County and graduated from the University of Louisville Medical Department in 1911. After graduation he practiced in Fairdale from 1913 to 1918. During World War I he served in the army and after his discharge entered the U. S. Public Health Service in which he did extensive work on tropical diseases in Central America.

WILLIAM M. BROWN, M. D.

Lexington

1893 - 1953



Dr. William M. Brown, Lexington, died on February 23, 1953, ten or twelve hours after he was stricken.

He was born in Bourbon County on Christmas day, 1893, and received his medical degree from the University of Virginia in 1919. After a rotating internship at the Cincinnati General Hospital, he received orthopedic training under the late Russell Hibbs at the New York Orthopedic Hospital and returned to Lexington in 1922. Here he practiced his specialty of orthopedic surgery until his death.

Dr. Brown was the first chief surgeon of the Lexington Shriners Hospital for Crippled children when it opened in 1927 and retained this position until he resigned in 1941.

His colleagues in the Fayette County Medical Society, of which he was a member, said of him "In the thirty years he lived and worked among us we all admired and respected him as a careful worker, a skillful surgeon, and a man of uncompromising integrity. A vigorous and occasionally choleric personality, he never left anyone in doubt as to where he stood."

Pertinent Paragraphs

An examination for medical officers to fill positions in specialized fields of medicine has been announced by the Civil Service Commission. Positions are principally in the Bureau of Indian Affairs at locations in western states and Alaska, with a few in Fish and Wildlife Service. Salaries range from \$5,940 to \$10,800 a year.

The ninth annual Congress of the American College of Allergists will be held April 26 to 29 at the Conrad Hilton Hotel, Chicago, preceded by a three-day graduate instructional course in allergy starting April 24. Credit for course attendance will be acceptable towards informal study requirements by the American Academy of General Practice.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

MAY, 1953

NO. 5

Endocrinology, Phases of Gynecology

W. O. JOHNSON, M. D.

Louisville

During the past 50 years endocrinology has become of age and has taken its place among the other branches of medical practice. In 1893 desiccated thyroid extract was the first to be used in the treatment of myxedema. Inulin was used in 1922; in 1929 Doisy and others made weak preparations of estrogens. Stilbestrol was introduced in 1935, and in 1937 synthetic preparations of Testosterone were introduced.

In the past decade many potent endocrine products have been made available, and their uses and results have been more specifically developed, both clinically and experimentally. As we unfold these secrets of life, greater advances will be made. The surface has not as yet been scratched. The greatest recent advances have been with the pituitary and adrenal extracts, in the treatment of rheumatic fever, and some vascular and circulatory disorders. In association with these there has developed a better understanding of potassium salt metabolism and their associated relation.

Recent Factual Data

This treatise being limited to gynecological endocrinology, we will endeavor to present some of the recent, factual data in this field, and leave the theories and conjectures to future development. There is hardly a field in medicine that has been more overtreated and has had more mistreatment than the field of gynecological endocrinology. One reason for this is that over 60% of the cases in the field of gynecology are associated with psychiatric influences, and this makes the response

to the glandular medication more difficult to separate, and harder to interpret.

The personal enthusiasm of the physician towards an interested form of therapy will modify, enhance, and magnify not only the results, but also the interpretation of the results of his treatment.

Prior to 1929 gynecological endocrinology was purely guess-work. With the improvement in the strength and purity of the products, and the interpretable results from clinical and experimental studies to guide us, we can now be more specific, and the results more dependable. Because of the close inter-relationship none of the syndromes are ever in pure forms, and are not limited to only one gland dysfunction.

At this time we will deal only with known disturbances of ovarian function, which will be discussed as follows:

- Group I—Amenorrhea
- Group II—Dysmenorrhea
- Group III—Hyperestrogen group
- Group IV—Hypoestrogen group
- Group V—Hypoestrogen - hypoprogesterone group
- Group VI—Menopause
- Group VII—Sterility

Group I, Amenorrhea

Amenorrhea is merely a symptom, the absence of bleeding. It is primary when menstruation has never occurred, and secondary when menstruation has previously occurred. Amenorrhea, as far as the patient is concerned, is usually the most outstanding symptom. Primary amenorrhea is due to some disturbance in the pituitary - gonado - uterine relationship which prevents the normal cyclic changes in the endometrium.

Causes of Amenorrhea

1. Pregnancy, the most common cause.
2. Mechanical causes.
 - (a) imperforate hymen
 - (b) atresia of vagina
 - (c) congenital defects
(correct these conditions if possible)
3. Pituitary derangements.
 - (a) adiposogenital dystrophy (Frolich's syndrome), Thyroid
 - (b) pituitary cachexia (Simmond's disease), Substitution
 - (c) pituitary adenoma, X-ray or surgery
4. Thyroid derangements.
 - (a) primary hypothyroidism—Thyroid extract
 - (b) hyperthyroidism—Treatment or thyroidectomy
5. Adrenal gland derangements.
 - (a) adrenocortical hyperactivity (adrenal virilism), Rule out neoplasm
 - (b) adrenal insufficiency (Addison's disease), Supplant with organo-therapy
6. Nervous system derangements.
 - (a) anorexia nervosa, Protect and treat
 - (b) mental diseases, Psychiatrist
 - (c) emotional states, Find cause and treat
 - (d) nutritional disorders
7. Acute or chronic organic diseases.
 - (a) diseases associated with high fever
 - (b) tuberculosis
 - (c) nephritis, etc.
8. Ovarian failure.
 - (a) effects described above
 - (b) fibrosis
 - (c) neoplasms

Treatment

The treatment of amenorrhea is to first, if possible, find the cause and correct it, or treat it specifically. Treatment may be divided into nutritional, endocrinal, radiation, or surgical procedures.

Eradicate the place of infection. Correct obesity. Institute thyroid therapy when indicated. Roentgen therapy to the pituitary has been encouraging in sterile couples. In 54% of the cases it may not be necessary to initiate endocrine therapy before the patient is seventeen years of age. Let the physiological pattern start

and then help later. The longer the period of amenorrhea, the less optimistic the result of treatment. Making an anovulatory woman ovulate is a difficult problem. The cyclic treatment of amenorrhea can be as follows: 2.5 mgm. Estrone daily for 15 days; 60 mgm. Proanone (oral Progestoral) daily for 5 days, and repeat for three successive periods, beginning with the cessation of the induced menstrual flow. The treatment at all times should attempt to correct the underlying cause, and should not produce dangers of gonadal dysfunction. Gonadotrophic therapy has been disappointingly used in the treatment of amenorrhea.

Group II. Dysmenorrhea

There is no one cause for dysmenorrhea, and therefore the treatment must be individualized. Almost every endocrine product introduced has been tried in the treatment of dysmenorrhea, but no one product has been successful in the treatment of all cases.

Estrogens: Premarin 5 mgm. or Stilbestrol 0.1—0.5 mgm. can be used to prevent ovulation temporarily, but it should not be used in the cases that desire pregnancy.

Androgens: These depress the pituitary and counteract the effects of estrogen (10-20 mgm. given daily in the last week of the cycle). They can be used for a short time, but never over 200 mgm. per month, and for a limited time. Androgens should be avoided in cases with hirsutism or masculine tendencies or other side effects.

Thyroid extract: Thyroid can be used in all cases when the B M R is on the minus side, and can be used with Insulin and thiamine chloride to build up the general metabolism.

One can readily see that only careful individualization as to the cause of dysmenorrhea will suffice. Secondary dysmenorrhea many times requires correction by surgery.

Group III. Hyperestrogen Group

In the hyperestrogen group, the following history is usually found:

1. The patient's breasts become sore from two days to two weeks before the period, and the degree has an individual variance.
2. Duration of menstrual period from one to four days, and not profuse.
3. The patient loses little blood, and

usually has little or no clotting.

4. Complaints of headache before or during periods are frequent.
5. They do not have large families, indicating a relative sterility.
6. Their red cell count and hemoglobin are usually normal. Seldom is a secondary anemia found.
7. They frequently have a thick mucous vaginal discharge which is the result of hyperactivity of the cervical glands.
8. Nausea during pregnancy is less severe, and of short duration when present.
9. Uterine fibroids and endometriosis may frequently develop in this group. (Cause or effect?)
10. Abortions are frequent with pregnancies. (Progesterone deficiency?)
11. They are usually very tense individuals, and are usually sexually normal.
12. Mild to severe dysmenorrhea is not uncommon.
13. They are usually thin in early life, and are not frequently much overweight.
14. They may develop polycystic ovaries.

One condition that is particularly troublesome in this group is premenstrual tension. (Exaggeration of menstrual moulins to the point of incapacitation.)

Outline of treatment of premenstrual tension. (Individualize the patient's therapy.)

1. Have the patient understand and accept the responsibility of good health habits.
2. Thyroid should be given daily if indicated, and to physiological effect.
3. Progesterone by mouth or hypodermically, giving 10-20 mgm. on the fifth and third days premenstrually. (Substitution therapy)
4. Testosterone by mouth or hypodermically only in severe cases. (Limited)
5. Ammonium chloride by mouth, enteric-coated tablets, 90 to 120 grains daily, may be indicated when water retention is severe. Restricted sodium chloride intake should be to 100 mgm. daily. Ammonium chloride is best given over a three-day period with a rest of three to four days and

repeated again for three days, or gastritis may result.

6. Bromth (Parabrom, Brayten) 1-2 tablets t.i.d. for 3 to 5 days before the expected period, or when symptoms appear. Discontinue medication when the period begins.
7. Be sure to correct all organic conditions present if they influence the physiological or psychological states. Pelvic congestion and chronic cystic mastitis are frequent. Proper support of the uterus and pelvic structures is important. In some of the severe cases near the menopause, minimum X-ray castration may be done.

Group IV. Hypoestrogen Group

In the hypoestrogen group, you will find the following history:

1. Sore breasts. The breasts may become a little engorged just before or during the period, but the patients do not complain of soreness. Lumpiness is present before the periods. Chronic cystic mastitis and endocrine deficiency are frequent.
2. Duration of period. These patients menstruate from six to eight days. The first few days of bleeding are with clot formation, and at times is so profuse that they are forced to stay off their feet for the first two days.
3. These patients usually lose a lot of blood at each period or dribble for long periods.
4. Headaches. These patients usually complain of headaches in the occipital region or the top of the head from one to three day before menstruation or during menstruation, and belong to the group of chronic complainers.
5. These patients usually become pregnant very easily, and may have large families.
6. Anemia. The majority will show a definite secondary anemia.
7. Vaginal discharge. Unless they have trichomonas vaginalis, fungus infection or an endocervicitis with erosion, they do not complain of discharge.
8. Nausea during pregnancy. It is usually more marked than in Group III and may become quite stubborn

to treatment. Many complain of severe headaches during the first part of pregnancy. The headache many times disappears on varying doses of Stilbestrol, 5 to 15 mgm. daily.

9. To my knowledge I have never found fibroids or endometriosis in this particular group of patients.
10. Abortions. The percentage of abortions is lower than normal.
11. Sexually they may be normal or may not be interested, and experience very little satisfaction.
12. They may have mild dysmenorrhea. They do often develop primary dysmenorrhea.
13. They may be thin, but are more often overweight.
14. They seldom develop polycystic ovaries.
15. Many complain of ovarian pain with normal appearing ovaries, and develop pelvic congestion early.

Group V. Hypoestrogen-Hypoprogesterone Group

In the Hypoestrogen-Hypoprogesterone group, or the so-called functional bleeders, the most common functional complaints encountered by the gynecologist are (1) excessive regular flow, and (2) too frequent and prolonged flow. They give the following history:

1. No soreness of breasts before menstruation. (Low stimulation threshold.)
2. Duration of menstruation is from one to three days, frequently irregular.
3. Frequent periods of dribbling or prolonged dribbling with few clots.
4. No occipital headaches before or during menstruation.
5. They show a relatively high rate of sterility.
6. They may have primary and secondary dysmenorrhea.
7. Sexually they may be normal, but are usually below normal.
8. They seldom develop fibroids. Endometriosis or adenomyosis is more common.
9. They usually start to menstruate later in life, and have their menopause earlier than the average.
10. If they become pregnant, abortions

and premature labors are higher than normal.

11. They may or may not be hypothyroid.
12. On pelvic examination the vagina, cervix, and uterus are smaller than normal. (The utero-cervical relationship is disturbed.)

In selecting a plan of treatment for Group V:

1. The age of the patient should be considered. Bleeding both in puberty and maturity is important to conserve reproductive functions.
2. To control bleeding when the patient is first seen:
 - a. Exsanguinated patients should be hospitalized and given one or more transfusions, followed by curettage if necessary.
 - b. Then 50 mgm. Progesterone on the fifth and third days before the calculated period for three months to produce a medical curettage.
3. When the general condition is fairly good:
 - a. Complete history, physical examination, blood examination, and urine analysis.
 - b. Vaginal cytological studies when possible. (Hormone estimate.)
 - c. Basal metabolic rate and basal temperature charts.
 - d. Rule out malignancy by cytologic studies or suction curettage.
 - e. If available, pregnanediol and 17 keto-steriod determination.
 - f. Have the patient accept the responsibility of good health habits.
 - g. High protein-high vitamin diet, 2500-3000 calories daily.
 - h. Proper rest, relaxation for the individual requirements.
 - i. Thyroid extract (U.S.P.) $\frac{1}{2}$ grain q.h.s. for 10 days, and increase $\frac{1}{2}$ grain each 10 days to physiological effect—15 B M R. Carefully supervise and study the subjective improvement as to changes in the skin, hair, nails, blood pressure, pulse, and subjective feeling.
 - j. Substitution of estrogen by mouth to build up a higher level until a normal level is reached, or cyclogestrin tablets (Upjohn) for combined therapy.
 - k. In the extreme states it takes patience and patient's understanding and co-operation to reach the de-

sired results. If it takes twenty years to produce the condition, do you as human beings think you can correct it with a few shots?

4. Prevention of recurrence.

- a. Endometrial biopsy done on the first day of the fourth cycle. If secretory endometrium is obtained, discontinue specific treatment, and continue thyroid extract and supervision of the health of the individual.
- b. Gonadotropins have proven disappointing in the treatment of functional uterine bleeding.
- c. Correction of obesity or underweight, and improvement of the general health of the individual.
- d. Hysterectomy is not indicated in this type of case for it can be controlled by other methods.

Group VI. Menopause

In the menopause one should be most careful of the diagnosis. First, be sure that you don't have a disillusioned, disappointed, depressed, and exhausted woman who won't face "middle age." The menopause is a normal process, and if middle aged women will accept it, and live their lives within their capacities emotionally, physically, and physiologically, they will be normal, non-complaining women.

Some necessary steps in the treatment of the menopausal syndrome:

1. Be sure that the symptoms result from organic changes, not from nervousness and anxieties with physical changes.
2. Proper health habits "in action" and not words is necessary.
3. A factual understanding by the patient of what the menopause is, and what is to be expected.
4. A doctor more enthusiastic about the results in the treatment of patients than in the lowering of his golf score.
5. When time, patience, explanation, and co-operation have been fully carried out, there will be only about 2% of the people to receive medication for menopause.
6. In the menopause, estrogen therapy should be given for and aimed at palliation, and not euphoria. All therapy outlines should be definitely limited and not to exceed six months, given orally, cyclically 20 days on

and 10 days off, and then gradually withdrawn.

7. When you see a person who has to have shots for two or three years at irregular intervals, you do not have the menopause. You have an "escapist" who will not assume the responsibility and face facts and who does not want to get well. A patient does not get well or respond to treatment when you are not treating her for what is troubling her or what is producing her symptoms.
8. Premarin or Natestrin 1.25 mgm. or Stilbestrol 0.5 mgm. given cyclically is usually sufficient to alleviate symptoms. Some sedation may be added when needed, and hormone medication reduced to 0.625 mgm. in two months.

In my experience the conjugated estrogen hormones give slightly better results, but are more costly. Satisfactory, and less costly, results can be obtained with smaller doses of Stilbestrol, 0.5 mgm.

Infrequent injections and large amounts of estrogen during the climacteric are wholly unphysiological, and help to fix the "escapist" syndrome, and retard the normal results of improvement. There are too many shots, too long given, and by too great a number of enthusiastic office nurses, which keeps the endocrine system in a state of tension or fluctuation and deficiency with suppression and instability, and is a sure way of maintaining a climacteric crisis. You prepare them for and support them with a "buggy ride," and they take it.

The ovaries secrete a small but important amount of estrogen from a metabolic standpoint for many years after the menopause, and it is important to let the body adjust to it. Excision because of chronological age or depression with excessive hormone substitution is damaging, and in these castrates the incidence of osteoporosis in post-menopausal cases is reduced when ovarian conservation is practiced.

Any bleeding three months or more after cessation of bleeding is abnormal, and cancer should be ruled out by examination, cytology, and biopsies, or dilatation and curettage. If bleeding occurs with estrogen therapy, discontinue its use. If bleeding lasts over ten days, a biopsy and/or dilatation and curettage should be done to rule out carcinoma of the cervix or fundus.

Women with post-menopausal bleeding have an 82% chance that the bleeding is from an organic uterine lesion, and a 65% chance that it may be malignant.

The multiplicity of the symptoms at menopause shows the threshold of individual adaptation to the environment and are not caused by menopause. In most cases they are an "escape mechanism" of middle aged women to avoid the disagreeable emotional facts of their lives.

Group VII. Sterility

Sterility is many times due to non-production of an ovum, or the production of an inadequate or blighted ovum which will not mature or develop properly after fertilization. Ovarian sterility should never be presumed, but should be diagnosed by basal temperature records, endometrial biopsies, and pregnanediol studies, for less than 10% of the sterility cases are directly due to ovarian failure.

When a patient consults her physician for sterility, the following outline should be carried out, because the diagnosis is made best by a process of elimination:

1. Complete and careful study of history and physical findings of both parties.
2. Accurate sperm count on the husband with a total count per cc. and differential and motility before any tests are done on the female. (50% of the problem.)
3. General physical examination including complete blood count and urine analysis.
4. Basal metabolism test and basal temperature charts.
5. Determine the patency of the fallopian tubes by Rubin's test.
6. Endometrial biopsy before menstruation starts, with suction curette.
7. Pharris special rat test for ovulation.

If the conclusion is reached by the above tests that sterility is due to inadequate ovulation, several courses of treatment may be followed, either stimulation therapy or substitution therapy. Stimulation therapy may be twofold by thyroid extract, pregnant mare's serum, etc., depending on indications present. Gonadotrophic therapy in cases of sterility should never be used empirically.

Other Indications for Estrogen Therapy

Other Indications for Estrogen Therapy

1. Gonorrheal vaginitis (in children).
2. Post-operative ovarian deficiencies.
3. Senile vaginitis and fibrosis.
4. Senile fibrosis of urethra.
5. Post-radiation deficiency not associated with malignancies.
6. In preparation of senile vaginitis in prolapse cases for operation.
7. Early cases of leukoplakia of the vulva (temporary).
8. Carcinoma of the prostate in males.
9. Skin metastasis in advanced cases of carcinoma of the breast.
10. Some senile osteoporosis.

Some Indications for Progesterone Therapy

1. To effect a medical curettage in the functional uterine bleeding. (50 mgm. Progesterone on the third day premenstrually, and repeat each 28 days for three months.)
2. In some cases of threatened abortion where pregnanediol is low, for substitution. (Do not think it is ever indicated empirically in cases of abortion.)
3. Relief of some cases of premenstrual tension.
4. Substitutional cyclic therapy in some cases of amenorrhea.
5. With estrone in substitutional therapy of dysmenorrhea.
6. Progesterone therapy is only a temporary substitutional therapy and should not be used empirically.

In progress there is no security, but one can with assurance advance from the known to the unknown, and by frequent reports of factual data one can crystalize the facts of progress.

Let us seek the truth as to the cause of conditions rather than offering "panaceas" for treatment.

BIBLIOGRAPHY

1. Willard M. Allen, "Gynecological Endocrinology in General Practice," *The Journal of the Iowa State Medical Society*, Vol. 41:6, pages 209-215. (June, 1951.)
2. E. C. Hamblin, "Conservatism in Gynecology," *The Journal of the Arkansas Medical Society*, Vol. 47, pages 131-137. (January, 1951.)
3. Jacob Kotz and Morton S. Kamfin, "Endocrine Therapy in Gynecological Practice," *International College of Surgeons*, Vol. 15:155, pages 569-573. (June, 1951.)
4. Paul Titus, "Current Trends in Obstetrics and Gynecology," *Journal of Obstetrics and Gynecology of the British Empire*, Vol. 58:4, pages 620-628. (August, 1951.)

Pancreatitis

JOHN B. FLOYD, JR., M. D.

FRANKLIN B. MOOSNICK, M. D.

Lexington

CHARLES N. FLOYD, M. D.

Louisville

A review of the literature referable to pancreatitis forms the basis for a comprehensive knowledge of the disease or for a better understanding of the process. Standardization of thoughts regarding etiology and treatment is the desirable result of such studies.

Interesting experimental and clinical observations have accumulated for almost one hundred years, since Claude Bernard produced pancreatitis by injecting bile and olive oil into the pancreatic ducts of animals¹. Publication of such information as this has served to emphasize the lethality of intra-ductal abnormalities of the pancreas.

When we look for conditions capable of creating intraductal abnormalities clinically, we have been taught the importance of the ampullary stone, cheered on by Fitz's concise classical pathological classification², and by Opie's pertinent pathological observations³.

Choledochal Stones

Opie reported a fatal case of acute hemorrhagic pancreatitis in which a choledochal stone was obstructing the ampulla so that a common channel was created between the common bile duct and the pancreatic duct. In 8 of 32 cases collected, a stone was found in or near the ampulla. This stimulated much discussion and many experiments were performed in the first years of this century based on the injection of various materials, both sterile and non-sterile, into the pancreatic ducts under many conditions.

Sphincter Oddi

Along with experiments, many anatomical and pathological studies were published, revealing a large percentage of cases of pancreatitis in which no stones were found in the common duct and a few in which the gall bladder was normal. More discussion followed, and seg-

mental spasm of the sphincter of Oddi as another cause of intraductal abnormalities was completely investigated and described by Archibald⁴.

The sphincter of Oddi normally controls the flow of pancreatic and biliary secretions into the duodenum, and by closing the ampulla forces bile into the gall bladder, and prevents emptying of the pancreatic ducts. Pressure for the "regurgitation effect" in the pancreas may be supplied by the actively secreting gland itself, and if it is not able to empty its ducts, the result may be acinar injury. Since more and more attention is being focused upon the sphincter of Oddi, it may be well to review several historical facts regarding it.

The muscular sphincter was described by Francis Glisson⁵ in 1654, and its anatomy closely investigated by Simon Gage in the late nineteenth century. A few years later in 1887 Oddi demonstrated its presence in many animals, measured its resistance, noted the biliary system dilatation following cholecystectomy, and postulated that dysfunction of this occluding apparatus might explain certain morbid affections of the biliary tract.

Oddi's Postulate

Oddi's Postulation has been supported by Archibald's opinions and has been confirmed by Doubilet and Mulholland⁶ who point out that reflux of bile into the pancreatic ducts should be prevented by cutting the sphincter of Oddi.

At this point interjection of a conclusion relative to the role of infection is relevant. It was early noted that pancreatic abscess was a complication of pancreatitis. However in early cases bacteria are not found⁷. Thus we must look elsewhere for the cardinal causes.

Intraductal Abnormalities

Vascular abnormalities appear to be secondary to intra-ductal abnormalities, and consist of various degrees of vaso-

spasm with various degrees of edema and necrosis. Popper early (1932) wrote of relief of pain by doing a left splanchnic block in the lower thoracic area and suggested later that it be due to inhibition of pancreatic secretions and to release of arterial spasm, in addition to inhibiting the sphincter of Oddi providing release of backed up secretions⁹. He points out that the edema fluid is a diffused collection of pancreatic juices, and questions the need of presence of acinar duct rupture.

Etiology of Ductal Spasms

Acinar rupture by bile regurgitation under pressure, to permit the pancreaticobiliary fluid contact with pancreas tissue is felt to be the initiating cause of the vascular and ductal spasm¹⁰. In turn, follows edema, exudation, necrosis and hemorrhage.

Pancreatic Edema

The transition of pancreatic edema into pancreatic necrosis was beautifully demonstrated by Popper, Nicholes, and Russell in 1948¹¹. Pancreatic edema was established by stimulating external pancreatic secretion with intra-venous secretin in face of ligation of the pancreatic duct. Uniformly necrosis did not result until the pancreatic artery was occluded for 15 minutes. Without edema and duct ligation, the pancreas did not develop signs of necrosis after artery occlusion for 30 to 40 minutes.

The search for etiological factors thus continues, for the express purpose of improving treatment. Contributing causes of sphincter of Oddi spasm have recently been responsible for a number of papers introducing steps or procedures to be considered in controlling recurrences¹².

Splanchnic Plexus Anesthesia

Gage and Gillespie published the results of some dog experiments¹³ showing the definite beneficial effects of splanchnic plexus anesthesia in preventing death from pancreatitis. The pancreatitis was created by injection of 4 cc of sterile bile into the main pancreatic duct of dogs, following which the duct was ligated to prevent decompression. This confirmed the effectiveness of the rational therapy of acute pancreatitis outlined by Gage and Floyd¹⁰.

As intimated previously, recurring attacks of pancreatitis are prevented by remedying any biliary tract disease by cholecystectomy and exploratory choledochotomy. In addition proper treatment of the ampullary region is of equal importance surgically.

Medical Treatment

Medical treatment follows the tenets of the bland diet, avoiding direct stimulation of the duodenal papilla with gastric hyperacidity or alcohol¹⁴. In recurrent pancreatitis emotional disturbance is the usual cause of sphincter of Oddi dyskinesia, as was suggested by Archibald in 1913 and as stated without equivocation by Doubilet and Mulholland in 1949¹⁵.

Decrease in pancreatic secretions by atropinization of the patient was suggested a long time ago. It is entirely logical to expect a more beneficial effect from the use of Banthine, a para-sympatholytic drug¹⁶. Shingleton, Anlyan and David point out, additionally, that the vagus nerves exercise the most important control over pancreatic enzymes, while secretin is concerned mainly with the water and bicarbonate content of the external pancreatic secretion.

This tends to confirm Richman and Colp's suggestion that subtotal gastrectomy and vagotomy is a rational step in the treatment of chronic relapsing pancreatitis¹⁷. Hydrochloric acid is decreased, thus decreasing secretin formation, and secretory volume and bicarbonate content of the external pancreatic secretion. In turn there is decreased opportunity of inducing spasm of the sphincter of Oddi. The highly enzymatic content of the external pancreatic secretion may be reduced by the vagotomy. This step was carried out in three patients.

Much along the same line are conclusions drawn by Schaffarzick, Ferran, and McClerry, who noted a lower amylase and less pancreatic destruction in experimental dog pancreatitis following vagotomy¹⁸. Annis and Hallenbeck found that the volume bicarbonate content and nitrogen content of pancreatic juice secreted in response to a meat meal were decreased after resection of three fourths of the stomach in 4 out of 5 dogs¹⁹. However the response was normal and unchanged to hydrochloric acid placed in the duodenum, and to secretin injected intravenously.

Treatment of Chronic Pancreatitis

A most practical article by Ralph Bowers²⁰ outlines the treatment of chronic pancreatitis by emphasizing the need for proper drainage of the pancreatico-biliary system, and deals effectively with the chronic complications. The accurate brief concise presentation makes it a desirable article for study. Bowers contends that the use of sympathectomy will not be effective unless it permits relaxation of the sphincter of Oddi.

Mallet Guy and deBeauju emphasized this point in reporting on seventy cases of splanchnicectomy²¹. With biliary obstruction splanchnicectomy was not done, but if biliary obstruction is corrected then left unilateral splanchnicectomy was carried out.

Resume

A brief review of the literature regarding pancreatitis is presented to bring out etiological principles.

From this understanding, the course of improved therapy is followed.

Standardization of treatment can thus be more closely approached for the benefit of the patient.

REFERENCES

1. Ireneus, Carl, Jr. Experimental Bile Pancreatitis with special reference to recovery and to the toxicity of the hemorrhagic exudate. *Arch. Surg.* 42: 126-140, 1941 (Jan.).
2. Fitz, R. H. Acute Pancreatitis, *Medical Record* 35:197, 1898.
3. Opie, E. L. The Etiology of Acute Hemorrhagic Pancreatitis, *Bull. Johns Hopkins Hosp.* 12:182, 1901.

4. Archibald, Edward. The Experimental Production of Pancreatitis in Animals as the Result of the Resistance of the Common Duct Sphincter. *S. G. O.* 28:529 1919.
5. Boyden, E. A.: The Sphincter of Oddi in Man and Certain Representative Mammals. *Surgery* 1:25, 1937 (Jan.).
6. Doubilet, Henry and J. H. Mulholland. The Surgical Treatment of Recurrent Acute Pancreatitis by Endocholedochal Sphincterotomy. *S. G. O.* 86:295-306, March, 1948.
7. Randin, J. and Johnston, C. G. The Etiology and Pathogenesis of Acute Hemorrhagic Pancreatitis, *Am. J. Med.* 205:277, Feb. 1947.
8. Gaster, Joseph, Alexander Blain, III, and K. H. Campbell. Pathogenesis of Acute Hemorrhagic Pancreatitis. *Arch. Surg.* 60:473-491, March 1950.
9. Popper, H. L. Acute Pancreatitis, an Evaluation of the Classification, Symptomatology, Diagnosis and Therapy. *Am. J. of Dig. Dis.* 15:1-4, Jan. 1948.
10. Gage, Mims and J. B. Floyd. The Treatment of Acute Pancreatitis with Discussion of Mechanism of Production, Clinical Manifestations, and Diagnosis and Report of Four Cases. *Trans. of South. Surg. Assoc.* 59:414-442, 1947.
11. Popper, H. L., Nicholes, H., and K. C. Russell. Transition of Pancreatic Edema into Pancreatic Necrosis. *S.G.O.* 87:79-82, 1948 (July).
12. Gage, Mims, and George Gillespie. Acute Pancreatitis and its Treatment. *Southern Medical Journal* 44:769-775, 1951 (Sept.).
13. Floyd, John B., Jr. Acute Pancreatitis and the Rational Treatment. *Ky. Med Journal*, 220-223, 1949 (June).
14. Pribram, B. O. C., Postcholecystectomy Syndromes, *J.A.M.A.* 142:1262-1264, April 22, 1950.
15. Doubilet, Henry, and J. H. Mulholland. The Surgical Treatment of Pancreatitis. *Surg. Cl. of North America*, 339-359, 1949 (April).
16. Shingleton, Wm. W., W. G. Anlyan and A. K. David, Jr. Treatment of Experimental Acute Pancreatitis with Banthine Surgery. 31:490-494, April 1952.
17. Richman, Alexander and R. Colp. Chronic Relapsing Pancreatitis, Treatment by Subtotal Gastrectomy and Vagotomy. *Am. Surg.* 131:145-158, 1950 (Feb.).
18. Schaffarick, Wm. R., H. H. Ferran and R. S. McClerry. A Study of the Effect of Vagotomy on Exp. Pancreatitis. *S. G. O.* 93: 9-15, 1951 (July).
19. Anns, David and Hallenbeck, G. A., The Effects of Partial Gastrectomy on Canine External Pancreatic Secretion. *Surgery* 31:517-527, 1952 (April).
20. Bowers, Ralph. Surgical Therapy for Chronic Pancreatitis, *Surgery* 30: 116-129, 1951 (July).
21. Mallet, Guy, Pierre and M. J. deBeauju. Treatment of Chronic Pancreatitis by Unilateral Splanchnicectomy. *Arch. Surg.* 60:223-241, 1950 (Feb.).

Breast Cancer: A Study of Ten Year Results

L. WALLACE FRANK, M. D.

Louisville

The greatest killer of our time is heart disease, and cancer ranks second. It has not been so many years ago that tuberculosis ranked second in the causes of death in the United States. Improvement in the treatment of tuberculosis plus the information brought to the attention of the public as to the cause and spread of the disease were big factors in reducing the death rate from this condition.

Unfortunately this has not been true of cancer. In the past ten or twelve years monthly periodicals, newspapers, and the radio have been informing the public of

the signs and symptoms of cancer. Regardless of this wide publicity, many individuals consult their physicians when the disease is far advanced, and a large number of them are beyond the stage of curability.

Four Major Causes of Death

The statistics of the Kentucky State Board of Health list the following as the four major causes of death:

1. Heart disease
2. Malignant neoplasms (cancer)
3. Intracranial lesions of vascular origin (apoplexy)
4. Accidents.

In 1950 the four mentioned above accounted for 17,473 deaths or 63.1 per cent of all deaths.

Cancer Statistics

I just made the statement that when the knowledge of the cause and spread of tuberculosis was made known to the public, it, as a cause of death, dropped from second to seventh or eighth place. Furthermore, I have stated that regardless of the publicity of the signs and symptoms of cancer such a drop had not occurred. The statistics in Kentucky show that in the ten-year period from 1940 to 1950 there has been an increase in deaths due to cancer of practically thirty per cent. In 1940, deaths from malignant neoplasms amounted to 2,426 or 85.3 per 100,000 population. In 1945, this death rate had increased to 2,718 or 102.8 per 100,000 population. In 1950 there was another increase; that year 3,252 people died of malignant disease, or 110.0 per 100,000 population. Of this number, namely 3,252 who died of malignant disease, 255 were women who died of breast cancer.

Importance of Early Recognition

Cancer of the breast is curable, but the patient must be treated in the early stages of the disease. By that, I do not mean early after the woman has discovered a lump in her breast, but early in the development of the growth. I have seen quite a number of women with tremendous tumors in their breasts who have assured me the tumor had only been there for two weeks. I knew from the size and appearance of the growth that it had been there 6 to 10 months or longer. These individuals deserve some sympathy, but not much. How can any person who bathes fail to feel a tumor of the breast as large as a golf ball or lemon. If she does not feel such a tumor, I would say her bath is scanty and she does not dry herself.

It is unfortunate that cancer in its early stages causes no pain. Hence a lump in the breast, a sore on the lip, or insignificant vaginal bleeding is overlooked. There is another side to the question of the reduction in the death rate from cancer. I have mentioned the delay of the patient to seek medical attention. The other side to be considered is the failure of the physician to recognize the disease. I have no fault to find with the family doctor. How

can he be blamed? I grew up in an age when relatively few doctors were hospital trained. After graduation they started to practice, and many had seen but few cancers. One of my very good and best friends told me some years ago that he had been in practice more than forty years and he had seen only four or five cases of breast cancer. Perhaps it was not so prevalent then, but the point I wish to emphasize is that to make a diagnosis the doctor must see more than an occasional case. The same holds true for cervical cancer.

I have seen many women, just as you have, who consulted their physician because they had found a tumor in their breast. Many were told, "If it doesn't bother you, don't bother it." Also have you and I seen many women nearing the menopause who had vaginal bleeding. Most were examined, but many were not and were told, "You are going through the change of life."

Method of Examination

With the information now given the public through the press, etc., often the patient realizes that she may have cancer. Many whom I have seen in the past few years want to know whether or not they have cancer. No doctor can make a diagnosis on symptoms alone. The patient must be examined. Such an examination should be thorough, and all of you know it is impossible to examine a woman's breast with her clothes on; and no vaginal examination is complete without speculum visualization of the cervix. In cases of rectal bleeding, even though hemorrhoids are present, it is a wise procedure to do a proctoscopic examination. Many patients with low colonic cancer have bleeding from the rectum. An operation is performed for hemorrhoids, and the main lesion overlooked.

Breast Cancer Most Common

Of the cancers occurring in women, the most common are cancer of the breast and that of the uterus. There is a marked difference in the results obtained from the treatment of cancer in these two sites. The former is seen most frequently in women approaching or past the menopause. Cancer of the cervix uteri may occur at any age, and I have seen a number of such cases in women in their late twenties or early thirties.

Late Recurrence

There is a marked difference in the results of the treatment of cancer of the breast and cancer of the uterine cervix. After thorough and appropriate treatment, if a patient with cervical cancer lives three to five years, the chances are that she will remain well. This does not hold good for breast cancer. Recurrence of the disease may occur years and years after the best of surgery, radiation therapy, or even sterilization. Not so many years ago I had a talk with the late Dr. Irvin Abell, Sr., and told him of a case that had been operated a few days earlier. This patient had had a radical mastectomy for breast cancer twenty years previously. When I removed a skin lesion in the epigastrium, I was surprised when the pathological report revealed that it was an adeno-carcinoma of the breast. This tumor was identical pathologically with the breast cancer removed twenty years before. Dr. Abell remarked that he had had a similar experience a month previously except that the interval between the operation and recurrence had been twenty-one years. Therefore, I say one can never know if a patient operated for breast cancer is cured.

Proper Treatment

It is the accepted opinion that the proper treatment of carcinoma of the breast consists in the removal of the breast, overlying skin, both pectoral muscles, and a thorough dissection of the axilla. Pack¹ has even gone so far as to recommend the removal of the other breast by simple mastectomy. He argues, and I must say I have to agree with him, that frequently the growth may appear in the remaining breast. I have observed quite a number of such cases.

Post Operative Treatment

Following radical extirpation of the breast, the patient may or may not be given X-ray therapy. It has been my practice to give post-operative radiation only to those women who showed cancerous invasion of the axillary lymph nodes. I have felt and still think that it is useless to treat patients in whom there is no demonstrable evidence of axillary cancer with deep X-ray therapy. My plan of treatment is based on the premise that if you treat something that may or may not exist, and recurrence does occur as glandular involvement, the recurrence is more

X-ray resistant. Therefore, I prefer to delay radiation therapy for the cases when recurrence does occur. In such patients the cancer cells are not resistant to X-ray therapy, and good response to the treatment may be expected. I realize that my opinion is at variance with some of the larger clinics, especially Lahey's. In his clinic all patients operated for breast carcinoma are given or were given post-operative X-ray therapy.

Discussion of Axillary Dissection

There are two groups of patients having cancer of the breast upon whom I do not do axillary dissection. The first falls into that category of so-called inflammatory cancer of the breast. I have never seen a patient having this type of growth live more than a year. It might be better were they treated by radiation and never operated. The surgery may hasten the spread of the growth. The second group upon whom I hesitate to do axillary dissection is comprised of those who have massive axillary involvement. The metastasis in the axilla of this group is more or less fixed. They are closely adherent to the axillary vessels, and one can be certain that there are smaller glands above the axillary artery extending even into the supraclavicular region, although not palpable on physical examination. I have learned, the hard way if I may say so, not to attempt axillary dissection in patients presenting such findings. I have found that simple mastectomy with the removal of the pectoralis major muscle plus early and adequate X-ray therapy may keep these individuals alive for many years. Operative interference simply hastens the spread of the growth and also shortens the life of the patient.

Problem Regarding Sterilization

There have been numerous articles published concerning the value of sterilization of young women having breast cancer. I have listened to quite a few such papers and read many others. I do not see how the authors can come to any definite conclusion. We all know that this disease eventually kills, and most of us have observed regression of the growth, or its metastases, only to see it recur later. How can any one say definitely whether or not sterilization, be it surgical or by radiation, is of any benefit? I have tried it in a number of cases but my experience as to its value is not conclusive. However,

believing that hormonal stimulation may have something to do with the cause and spread of the growth, I think it worth trying in young women with breast cancer. The "hot flashes" resulting from such treatment may be alleviated by intramuscular injection of male sex hormone. This not only diminishes the "hot flashes" but tends to lessen the rapidity of growth extension. In large doses it has been demonstrated to cause temporary disappearance of evident bone metastases.

Lymphedema

There is another matter which I want to bring to your attention, namely lymphedema of the arm. Those occurring late following radical mastectomy are probably due to recurrence of the cancer in the glands low in the neck or possibly under the clavicle. These glands may not be palpable. Lymphedema of the arm occurring early following operation is, in my opinion, due to close dissection along the axillary vessels. Following the operation there is a certain amount of scar tissue along the vein and lymphatics with resulting obstruction of the venous and lymph flow. Patients having lymphedema suffer almost as much as though they had a recurrence of their disease.

I intended to present a paper on a ten-year follow-up of patients having cancer of the breast. From what I have presented it would seem that I have written a paper on Cancer of the Breast omitting the methods of examination, diagnosis and prognosis. I apologize.

Five-Year Curability

Now to my subject, namely, a study of five-year curability of breast cancer. Before presenting the figures which I will show on the screen I would like to call your attention to the difficulty of a follow-up system. At Hopkins, Massachusetts General Hospital, Pennsylvania, Michigan, Mayo's and Lahey's Clinic this is simple. In such institutions many people are employed to do nothing but follow up the cases in which the clinic is interested. From what has been published in the Louisville papers this could not be accomplished at the General Hospital. To you who are interested in knowing the results of your surgery I have this to suggest. Follow your cases every two, three, or four months. It is easy to follow and check up the ones who reside in Louisville or its environs. They who are farther out in the state should be written

at least every three months or the referring doctor written in order to find out how the patient is progressing. Some years ago I attempted to follow up the breast cases that Dr. Louis Frank and I had done. It cost a great deal and was unsuccessful. The cases that I am presenting tonight have been followed according to the above formula.

From January 1936 to January 1946 I operated 150 cases of carcinoma of the breast. A few of the earlier ones came through the Cancer Clinic of the Norton Infirmary; all the rest were private patients. Fourteen of the 150 patients could not be traced and were considered as dying of cancer. Two others died, one of heart disease nine years after her operation, the other committing suicide. She had been examined a few weeks before killing herself, and there was no evidence of recurrence.

TABLE I

Total Number Cases	150
Alive and Well Five Years or More	64
Percentage of Five Year Curability	42.6%

TABLE II

Total Number of Cases With Axillary Metastasis	93
Alive and Well Five Years or More	29
Percentage of Five Year Curability With Axillary Glands	40 + %

In Table II you will note the large number of cases that had axillary metastases at the time of operation. To me this indicates that the cases were not early ones. It also demonstrates that we should intensify our efforts to inform the public of the seriousness of the disease. Women should be taught to examine their own breasts, and if any lump is discovered, to seek competent medical advice immediately.

TABLE III

Total Number of Cases Without Axillary Glands	57
Alive and Well Five Years or More	35
Percentage of Five Year Curability Without Axillary Glands	61.4 +

I cannot explain the low curability of this group who showed no evidence of metastases previous to or at the time of operation. The series is small, and a few deaths make a greater difference. Furthermore, there were four of this group that could not be traced and were considered as having died of cancer.

Conclusion

In concluding I would like to quote from an article written by G. Gordon Taylor² of London entitled "Cancer of the Breast." A Chaplain at Middlesex told me that during his three years service at the hospital he had never met any patient who wanted to die. "The addition of three years of life may not be always a trifling

gift; five years respite constitutes no paltry achievement; ten years may be a source of abiding joy to patient and relatives; twenty years spells a triumph."

REFERENCES

1. Pack, Dr. George T. "Argument for Radicalism in Cancer Surgery," *Am. Surgeon* 17: 271.
2. G. Gordon Taylor, "Cancer of the Breast," *British Medical Journal*, 1938.

The Management of Casualties in Korea

COLONEL FRANK E. HAGMAN

Fitzsimmons Army Hospital

Denver

The aggressive armed forces of the North Korean Communists smashed across the 38th Parallel in June 1950, without provocation and without warning. Well equipped, well led and well trained, they swept everything aside and it seemed certain the peninsula rapidly would be engulfed.

The response of the United Nations' Forces to this aggression is common knowledge. Anxious days passed and the Pusan Perimeter held. The tide turned as the brilliantly planned and superbly executed Inchon landing stunned the North Korean Communists. The campaign appeared to be nearing a successful conclusion for the United Nations as the Yalu River was reached. Then came the Chinese Communists hordes from the North. The sickening and disheartening struggle was renewed against a ruthless enemy.

The struggle is not terminated. The truce talks are deadlocked at Panmunjon while casualties continue to be inflicted. This disagreeable campaign is as real to our troops as any declared war in our history.

Korean Terrain

The surroundings of Korea are not favorable for the prosecution of a military campaign by modern armed forces using the current implements of warfare. The climate is unenviable and extremely variable. The hot, humid season is debilitating. The wet rainy season is depressing. Mud mires personnel and equipment. The cold season is silent and miserable. Cold

injuries are inflicted upon the contending parties. The elements, as well as the enemy, must be combated.

The terrain of the peninsula is rugged and mountainous served by poor and insufficient roads. The Infantry is charged with a difficult responsibility of attacking and defending these hostile hills on foot. Supplies are transported on the backs of men. Survival results from sweat and toil. This is not warfare conducted by pushing electric buttons.

Cradle of Infective Diseases

Korea has been touched very lightly indeed by the material developments of modern civilization. It remains basically primitive. Sanitation practically is nonexistent and the threat of disease striking in epidemic proportions is ever present. There is a potentiality for the rampant spread of the dysenteries, typhoid and paratyphoid fever, parasitic infestations, infectious hepatitis, typhus fever, leptospirosis, smallpox, malaria, Japanese B encephalitis and acute epidemic hemorrhagic fever, to name a few. Only by constant vigilance and the practice of all known means of preventive and suppressive measures have our forces been protected against possible disaster. Infectious hepatitis, Japanese B encephalitis and acute hemorrhagic fever have been troublesome. Malaria has been suppressed by mosquito control and by chloroquine; intestinal diseases by chemically treating water and properly controlling food supply. Immunization against other disease has been eminently successful when employed with other measures.

Read before the Annual Meeting of the Kentucky State Medical Association at Louisville, October 7-9, 1952.

Adverse Psychological Factors

In the psychological sphere Korea affected our forces adversely. Severely outnumbered in the early days of the campaign our men were forced to remain in combat many long days and nights without relief. Infiltration tactics by the enemy were often successful through our thinly deployed lines. North Korean combatants masqueraded as refugees and passed safely within streams of humanity to our rear where they operated successfully against us. Units were cut off by road blocks and encirclement. The sick and the wounded could not be rescued and treated as early as would have been ideal.

These adverse psychological factors were alleviated in part as our lines became more stabilized and as huge quantities of artillery were deployed against the enemy. Psychiatric casualties previously evacuated to the rear as far as Japan were treated within Divisions by psychiatrists. Since most of these casualties were combat exhaustion, a short period of rest, hot food, a bath, clean clothes and interview with reassurance restored the majority to combat duty. Moreover, it became evident that our policy was a determination to remain in Korea come what may. A rotation plan was instituted for combat and supporting troops with immediate salutary effect. Hope displaced despair and morale soared to unprecedented heights.

The Young Medical Officers

In contrast with World War II very few seasoned and mature physicians and surgeons have donned the uniform to contribute their talents to the support of the United Nations effort. To a great degree young medical officers have borne the burden of responsibility for the care of the sick and wounded. They have adapted readily their training and experience to the peculiar requirements for managing casualties in a theater of operations. It should be understood, however, that much credit for the success attained must be ascribed to civilian members of the medical profession who in past and recent wars formulated the fundamental concepts and principles upon which management of casualties in the Korean campaign is based. As rapidly as possible the priceless lessons learned from our preceptors were disseminated throughout the command.

Management of Battle Casualties

The management of battle casualties as in World War II is in phases and by many units along the chain of evacuation. Surgical procedures are accomplished at the proper time and in the proper place so that the welfare of the patient is safeguarded, the tactical situation is considered, and the relationships between staffs and hospitals are known, to the end that the military effort is not impeded and unforeseen harm done to the patient.

Accordion-like moves of medical units up and down the peninsula occurred as the fortunes of war waxed and waned. Hospitals were kept farther to the rear than desired because of the risk of losing scarce personnel and precious equipment. Furthermore, during an overwhelming attack it was not uncommon for a hospital to be forced to move back even though desperately needed for the care of the wounded.

Division Medical Units

The most forward medical care is provided by Division Medical Units. Medical aid men accompany the troops, initiate emergency care and assist in the evacuation of patients to the battalion aid station. The elapse of time between wounding and the administration of surgical care may be considerable and unavoidable, when rescue operations are conducted over difficult terrain at a distance from the base and under enemy fire. Delay is inevitable when units are cut off by the enemy and when break through occurs. Some wounded are able to reach a battalion aid station or other rear area unassisted. The more seriously injured must be found and carried back slowly and laboriously by litter or any method available. Six to eight hours delay is usual and often 24 hours or longer occurs before definitive care can be given. Thus patients may be adversely affected by prolonged wound shock, exposure, dehydration, exhaustion, and bacterial contamination. Thus the stage is set for the development of wound shock not responding to resuscitation, of lower nephron nephrosis, of serious infection and of profound physiological disturbances.

Battalion Aid Stations

At the battalion aid station hemorrhage is further controlled by pressure dressings, clamping and ligating severed blood vessels, elevation of the part and by tour-

niquet only if other means fail. Plasma, serum albumin or isotonic fluids are administered as necessary. Occasionally whole blood has been used at battalion aid level. Antibiotics and tetanus toxoid are administered, splints are applied or readjusted, airways are cleared, morphine is administered judiciously when indicated and other emergency aid measures applied in accordance with exigencies of the circumstances.

Use of the Helicopter

The more seriously injured are transported from the battalion aid station by helicopter to the Mobile Army Surgical Hospital. The helicopter has been of great assistance in the Korean campaign. Battle casualties may be transported quickly and safely to the rear avoiding the delay and hazards of evacuation by road. The helicopter, however, does not eliminate the necessity for seeking and transplanting the wounded to a place where it can land. A relatively flat area is required free from trees and other obstacles to enable the craft to set down and take off. The area must be free from small arms fire and other flying missiles. Darkness and adverse weather impose important limitations upon the use of the helicopter.

Less seriously wounded are evacuated to the rear by any means at hand. At collecting and clearing station level further treatment is given. Some medical, surgical, and psychiatric casualties may be held for treatment and return to duty within the division. Others requiring hospital care are evacuated to the Mobile Army Surgical Hospital which may be operating in conjunction with a platoon of the clearing station or further to the rear.

Mobile Army Surgical Hospital

The Mobile Army Surgical Hospital possesses the equipment and facilities, although simple and standardized, for adequate initial surgical care. Diagnosis of war injuries is relatively simple and treatment immediate and direct. Resuscitative measures are continued and initial operation performed for thoraco-abdominal injuries, perforating wound of the abdomen, genitourinary injuries, extensive burns, perineorectal injuries, and other severe wounds. Debridement of less serious wounds also is undertaken when the situation permits.

Evacuation and Field Hospitals

Evacuation and Field Hospitals, located strategically, give close support to Mobile Army Surgical Hospitals. Necessary therapy is administered to patients as begun elsewhere and as indicated for complications. Initial surgery also is undertaken for patients as circumstances require. To a limited degree reparative surgery may be performed for patients expected to be returned to duty within a reasonable period of time and if the tactical situation permits.

Hospitals in Japan are responsible for much of the reparative phase of surgery. Wounds purposely left open following debridement are closed, fractures more accurately reduced, infection eradicated, restoration of function encouraged and early return to duty accomplished when possible. Special treatment facilities are established for eye injuries, thoracic injuries, neurosurgical injuries, cold injuries, and for casualties with infectious hepatitis and psychiatric disturbances.

Patients requiring reconstructive surgery or whose return to duty cannot be expected within a reasonable time are evacuated by air to the United States and other United Nations. This is done as soon as possible when professional judgment dictates transportation can be accomplished safely.

Wound Shock and Resuscitation

Wound shock has occurred frequently in the Korean Campaign. Lyophilized plasma and serum albumin have been employed in the most forward areas for emergency treatment of depleted blood volume. Other blood substitutes have had a very limited trial from which no conclusions can be drawn.

Whole blood has been available in ample quantities at all times as the fluid of choice in the restoration of blood volume. This was supplied at first by donations made in Japan under the splendid program of the 406th Medical General Laboratory. This central blood bank continued as the agency for the blood program when supplies from the American Red Cross reached the Far East Command. Korea received O-type blood only whereas Japan utilized specific blood types.

Usually wound shock was not a difficult problem to manage. Many times,

however, patients in wound shock could not be resuscitated with satisfaction and were said to be in "irreversible shock." The fundamental difficulty for failure to resuscitate these patients was not determined because necropsies were not performed routinely.

Wound shock which fails to respond to therapy is commonly associated with thoraco-abdominal, retroperitoneal, large extremity and buttocks wounds. Severe bacterial contamination occurs in a significant number of these. Antibiotic therapy and surgical treatment of contaminated tissues are considered as part of the plan for resuscitation. Since patients in wound shock do not absorb well substances injected subcutaneously or intramuscularly, it is advocated that antibiotics be given intravenously in massive doses.

Wound shock which does not respond to the usual methods of therapy may be associated with complications, the recognition and treatment of which may alter favorably seeming irreversibility. In addition to reduction in blood volume and the effects of bacterial contamination, cardiorespiratory embarrassment may contribute to the continuation of the syndrome of shock. The course of events may improve by the alleviation of tension pneumothorax, massive hemothorax, atelectasis, cardiac tamponade, paradoxical respiration associated with flail chest and tracheobronchial obstruction. Likewise a favorable response may be obtained by recognizing and treating concealed hemorrhage intra-abdominally, extraperitoneally or into the soft tissues of the thigh or buttocks.

Profound wound shock in previously healthy young adults may be considered, for practical purposes, to be the result of the loss of 3000 cc's to 3500 cc's of the blood volume aggravated by the wound, bacterial contamination, unsplinted fractures, perforation of a viscus, dehydration, complication as discussed previously and by cold, fatigue and narcotics. A greater loss of blood volume is usual from severe wounds of the extremities than from abdominal and chest wounds.

The aim in resuscitation is to obtain rising blood pressure from 80-85 mm. of mercury systolic, slowing pulse rate, improving color and skin temperature and slackening thirst; surgical care of the wounds is then instituted as part of the process of further resuscitation.

Intra-arterial transfusions have been utilized but only clinical impressions as to their efficacy are available. These impressions vary among medical officers from enthusiastical praise of the method to those who have obtained only ephemeral improvement in wound shock. The method may be worthwhile particularly when the venous system appears to be plethoric, as evidenced by distention of neck veins despite the continuation of signs of shock.

Wound Debridement

Because of the large number of casualties wound debridement is a major problem. Although antibiotics are used freely and are very valuable, it has been demonstrated amply again they are not a substitute for surgical care of wounds. At various times during the conflict wounds were not debrided. This occurred more frequently during periods when units were overwhelmed with casualties, often with perforating soft tissue injuries. While many did not develop untoward complications, others became seriously infected and some developed clostridial myositis.

Early in the campaign attempts were made by inexperienced personnel to close wounds primarily. Delayed healing and serious infection resulted in many. Often during this period soft tissue wounds were treated by circumcising skin about missile entrance and exit, followed by stuffing the track with gauze. When the gauze subsequently was removed a stream of pus accompanied it.

It is axiomatic that wounds should be debrided when the danger from infection is greater than the risk of injuring important structures. Except in specific instances these wounds should not be sutured primarily. It is not always possible to recognize all necrotic and devitalized tissues with absolute certainty, during debridement. Unfortunately, also, it is necessary to transport patients with debrided wounds early, thus interrupting professional supervision.

Experience in the Korean Campaign has demonstrated again that battle wounds should be debrided by employing bold incisions through skin and fascia without unnecessary sacrifice of these structures. Free exposure of the tissues traversed by the missile and removal of all recognizable foreign, necrotic and devitalized material is essential to prevent or to eradicate infection. Vital structures must be

safeguarded during the procedure. Good ligating, adequate X-rays, satisfactory positioning of the part, suitable anesthesia and the often neglected extra pair of hands to assist the operator are minimal essentials for satisfactory wound surgery.

It is apparent that lessons learned from war surgery must be constantly reiterated in medical schools and residency training programs during these troubled times to improve the management of battle casualties. Since it is possible for disaster to strike a large segment of our civilian population at home it seems desirable that the lessons learned concerning the management of casualties in large numbers from past and present conflicts be disseminated widely. We need to know something about handling casualties in epidemic proportions even in civilian life.

Lower Nephron Nephrosis

Lower nephron nephrosis has not been a rare complication and is commonly associated with wound shock and delay, often unavoidable, in treating severe wounds. Most disheartening to the staff of a forward hospital is the development of renal failure after a formidable operative procedure has been executed apparently successfully. The diagnosis of lower nephron nephrosis is confirmed by the failure of the water tolerance test to produce urine. It is realized that the profession has little to offer except to sustain the patient and above all not to drown him by fluids in the vain hope the kidneys will be stimulated by water and electrolytes. Restriction of fluid and electrolyte intake may prevent pulmonary edema, permitting time for the lower nephron to undergo spontaneous healing. Unfortunately the wounds are often severe and complicated and the patient succumbs from insults to his body economy before nature heals the lower nephron.

A research team is now investigating this and other surgical problems in Korea. Among other equipment an artificial kidney is utilized in study and treatment of this condition. Surely this serious malady deserves all possible investigation to the end that more facts may be uncovered to aid the profession in its management.

Clostridial Myositis

Clostridial myositis is an ever present danger. As in wars of the past many cases have been encountered in Korea. Often these are associated with arterial

injuries but others have followed single or multiple missile wounds without primary arterial interruption. This serious anaerobic infection must be recognized and treated in the first few days after wounding. It must be differentiated from anaerobic cellulitis, a gas producing infection not involving muscle tissue. Prevention is the best treatment, prevention by early restoration of the general circulation, by avoiding constricting dressings and tight casts, by adequate wound debridement, by treatment of arterial injury, by faciotomy to relieve tension in the musculofacial bundle.

When the diagnosis is established the treatment is by surgical extirpation of involved muscle, groups of muscles or by amputation. Vascular injuries must be held in forward areas until clostridial myositis is not a threat. To place a patient with a threatened extremity in the chain of evacuation except for pressing tactical reasons invites a tragic outcome.

Vascular Injuries

Unfortunately vascular injuries are commonly associated with severe soft tissue and skeletal wounds. Attempts to repair arteries in such patients usually are unsuccessful and unwise because of the risk of secondary hemorrhage from infection. Furthermore, when casualties are heavy in number it is questionable whether the time expended in attempting to restore the continuity of the artery is justified. We must choose between a time consuming procedure of dubious value for one patient and attempting to do the greatest good for the greatest number who await surgical care in the preoperative tent. Nevertheless, there are patients and circumstances which justify every effort to restore the continuity of a major artery. Success has been rewarding in a sufficient number of cases to encourage continuing efforts in this direction. Let not the too precipitous evacuation of such a patient vitiate these noble attempts.

Neurosurgical Casualties

A pressing problem during the early months of the conflict was the deficiency of experienced professional personnel for the management of neurosurgical casualties.

The principle of early and adequate surgical care for these patients was recognized from the accumulated experience of previous wars. Penetrating and perforat-

ing gunshot wounds of the cranium and the spinal canal require debridement. All devitalized and foreign material readily accessible in these wounds are removed. Indriven bone fragments must be recognized and extracted to forestall the complications of abscess or diffuse infection. Hemostasis must be attained, the dura must be closed by graft if necessary and the overlying tissues approximated.

General surgeons did their utmost to debride these wounds but with only partial success. Inexperience of surgeons in this work, pressure of large numbers of other types of casualties requiring operation, together with inability to hold these patients in hospitals in Korea in the early months, produced far from enviable results. It would carry us too far afield to discuss the many difficulties encountered in management of neurosurgical casualties early in Korea.

When the situation permitted neurosurgical teams were dispatched to forward hospitals where special facilities were set up. To these teams neurosurgical casualties are flown by helicopter or other air transport. Initial operations are performed and the patients held until equilibrium has been established and the condition of the patients improved to permit safe evacuation to a neurosurgical service in Japan.

Upon arrival in Japan further care is administered as necessary. Complications are treated and the patients are placed in the best of condition prior to further evacuation by air to the home country. Great attention is devoted to the prevention of decubitus ulcers in paraplegias and quadriplegias by expert nursing care, by using Stryker frames, by introducing transurethral drainage of the bladder, by vigorous measures to improve nutrition and the like.

Transportation to the Zone of the Interior occurs in pressurized cabin planes. All para and quadriplegia patients are provided with Stryker frames for the journey. Trained medical personnel accompany and care for these patients enroute.

Neurosurgeons aboard U. S. Navy Hospital Ships and the Danish Hospital Ship "Juttandia" have given great support to the Ground Forces during many critical days. To them the United Nations owes a great debt of gratitude.

Maxillofacial Injuries

Maxillofacial injuries have required particular attention to the maintenance of an unobstructed tracheobronchial tree. Tracheostomy is practiced without hesitancy when indicated. Patients are held in forward hospitals until evacuation can be done safely.

These wounds are debrided with minimal sacrifice of tissue. Contrary to many other types of injury, the wounds are sutured primarily, providing dependent drainage by stab wound as necessary. Temporary splints are furnished for transportation without endangering the patient should vomiting occur intransit.

Neck Injuries

Exploration and debridement of wounds of the neck are practiced when it is probable that injury to the esophagus, hypopharynx, trachea, larynx or great vessels has occurred. Repairs are made and the wounds drained suitably. Tracheostomy is provided for injury of the airway and for existing or impending obstruction.

Thoracic Wounds

The indications for thoracotomy in forward areas relate to continuing and significant intrapleural hemorrhage arising from systemic vessels, to pressure pneumothorax not controlled by conservative measures, to diaphragmatic perforation of significant size, to injuries of the mediastinal structures, to wounds of the large bronchi or trachea, and to cardiac injuries.

Most wounds of the chest are managed best by conservative measures. Among these measures are repeated needle aspirations of air and blood until the pleural cavity is dry and the lung expanded, aspiration of the tracheobronchial tree, infiltration of intercostal nerves with local anesthetics, administration of oxygen and whole blood and debridement and closure of open wounds of the chest.

Frequent needle and syringe aspiration of air and blood has been demonstrated in the Korean campaign to be superior to routine employment of intercostal tube drainage for hemopneumothorax. Empyema and clotted hemothorax occur more frequently with tube than with multiple needle and syringe drainage of the chest in these patients.

After initial therapy of chest injuries in forward hospitals the patients are sent to thoracic surgical services in Japan for

further care. It is here that definitive treatment is given for empyema, clotted hemothorax, retained foreign bodies and other late complications.

During transportation of patients with closed thoracotomy tubes it is safer to provide a flutter valve apparatus because underwater seal bottles may break or careless handling may permit material from the bottle to be siphoned into the chest.

Abdominal Wounds

These patients are further resuscitated upon reaching a Mobile Army Surgical Hospital and the diagnosis established. Roentgen studies along with consideration of the course of the missile give some indication of the injuries likely to have occurred. The abdomen is explored when a missile conceivably could have perforated a hollow viscus.

In war injuries generally the best incision for exploration of the abdomen is the right or left pararectus or one placed in the mid line. These can be made and closed rapidly and extended up or down readily in accordance with what is found and needs to be done.

Transverse incisions are a disadvantage in battle injuries because longer time is required for opening and closing, exteriorization of damaged large intestine may be technically compromised, and supervening infection more difficult to control. Experience has demonstrated that it is preferable to exteriorize injuries of the large bowel through an incision separate and at a distance from that made for laparotomy to reduce the incidence of subsequent serious infection. This may be difficult to do when a transverse incision has been made.

Subcostal incisions also are unsatisfactory unless the surgeon is certain the injuries are confined to the region exposed. Exploration and repair of unsuspected injuries elsewhere may be difficult and embarrassing.

We are of the opinion that tight layer closure of the laparotomy incision in the presence of severe bacterial contamination invites serious wound infection. Non-absorbable sutures through the entire abdominal wall to approximate the margins of the wound are satisfactory and attended with less serious infection. Large caliber stainless steel through and through sutures, when employed, can be twisted so

that if subsequent inspection indicates the sutures are too tight they may be loosened readily and retwisted.

The abdomen is explored rapidly, systematically, and completely. Hemorrhage is controlled, injuries are suitably tagged and the operation continues in an orderly manner.

Following repair of lacerated liver the abdomen is drained by separate stab wound to prevent the accumulation of bile. When an associated laceration of the diaphragm is present the subphrenic space is drained to avoid thoracobiliary fistula. Wounds of the pancreas or kidneys also require drainage, but in general drainage of wounds of the abdomen is avoided.

Injuries of the small intestine are repaired or resected and not exteriorized. Perforations of the colon on the contrary are treated by adequately mobilizing the bowel to prevent tension and subsequent retraction and exteriorizing through a separate muscle splitting incision well away from the laparotomy wound. Colostomies are placed when possible at a distance from suprapubic cystostomies.

Wounds of the rectum may be present when missiles penetrate the abdomen, buttocks or thighs and have been overlooked until belated complications developed. Therefore, digital or proctoscopic examination is necessary in patients with such injuries. When the rectum has been perforated defunctioning colostomy and pararectal drainage must be accomplished. Defunctioning colostomy also is practiced for perforation of the pelvic colon which cannot be exteriorized.

Genito-urinary Wounds

The severed urethra is splinted at the time of cystostomy by a catheter introduced from below or above and the laceration lightly sutured, if possible. Suprapubic tubes are placed high in the fundus to prevent pressure upon the symphysis pubis and trigone.

Ureteral lacerations are repaired over an indwelling ureteral catheter and surrounding region drained to forestall serious complications.

All viable portions of injured external genitalia are preserved. The decision to emasculate is avoided in forward hospitals. Exposed testicles are preserved and covered with available tissues, at the same

time providing suitable drainage.

Nephrectomy is not undertaken except in hopelessly damaged kidneys. A conservative policy, including drainage, is practiced when only a portion of the kidneys is involved. Careful observation of the subsequent course of the patient is mandatory to determine the need for later operation for hemorrhage or infection.

Extremity Injuries

Injuries involving the extremities constitute more than one-half of all battle casualties. Initial management of these cannot be assumed solely by orthopedic surgeons. The burden is too great when the battle is brisk.

Circular amputation at the lowest level feasible without removing a cuff of periosteum continues to be favored as the safest method in forward hospitals when amputation is necessary. The open stump is dressed without overlapping the skin edges, traction is applied to the skin, and attached to a suitable splint placed on the extremity. The object is to gradually close the stump. Review of the amputation is done later in the zone of the Interior following expeditious evacuation by air through communication zone hospitals in Japan.

Initial debridement of open fractures and joint injuries occurs in forward hospitals. Plaster casts are applied to enable air evacuation to Japan. Circular dressing beneath the casts are avoided and all casts are well padded and split to the skin. Windows in casts also are avoided to prevent herniation of soft tissues.

These patients are evacuated to Japan and distributed to hospitals staffed by competent orthopedic surgeons. Measures there are continued to correct anemia and hypoproteinemia, to eliminate residual necrotic material and control infection, to reduce or close soft tissue defects and to correct the alignment.

Because of the large numbers of open fractures of the long bones during various stages of the conflict and the limited number of beds and personnel many patients were evacuated to the Zone of the Interior early in their course. Many were returned without accomplishing secondary closures. From reports available this met with favor among orthopedic medical officers in the United States. It was believed early evacuation of these patients when undertaken judiciously was not

harmful. If the patients were returned within a two-week's period more or less, reparative and reconstructive phases of surgical care could be carried out in stages in the hospital of destination without further transportation. This did not materially affect adversely their course according to reports sent to the Far East Command. On the other hand, it did provide more beds in FEC for freshly wounded casualties. It must be realized, however, that undue delay must be avoided between wounding and surgical care in the United States for this method to be successful.

Evacuation of Patients

Rapid evacuation of battle casualties is not an unmixed blessing. Following operation it is not wise to move too early patients with injuries of the abdomen, craniocerebral injuries, maxillofacial injuries with tracheostomy and vascular injuries threatening an extremity. While such may appear to be doing well three or four days after operation deterioration of the condition of patients has occurred more commonly than realized.

The trip from hospital to airfield is often rough and time consuming. Delay before and after loading the plane previous to take-off may be considerable. While the engines are being tested and the plane taxis about the field the cabin becomes excessively hot in warm weather. The patients perspire profusely losing much water and electrolytes.

During flight abdominal cramps and distension often occur. Some patients become air sick when the flight is made through rough weather. After the flight more loss of time and a long ambulance or train trip must be endured before the hospital of destination is reached.

Patients now may require treatment by nasogastric suction, intravenous fluids and operation for evisceration or secondary hemorrhage.

Decision to transport surgical patients must not be undertaken lightly. It is the responsibility of experienced doctors to decide the time for safe evacuation using good professional judgment and forestalling the efforts of administrative people to clear out a specified number of patients by decree. The minimum time for evacuating patients with abdominal injuries is 7 to 10 days and then only if the condition of these patients is satisfactory.

Procurement of Human Blood

The availability of whole blood in the management of battle casualties has been an accomplishment, the importance of which cannot be overemphasized. There can be little doubt that many fathers and sons are living today because of blood sent to them from those who did not forget. The first shipment to the 8054 Evacuation Hospital in Korea was made on 7 July 1950, the exact date this hospital became operational. This blood was donated by American military and civilian personnel and by members of other United Nations stationed in Japan. It is worthy of note that the Japanese public likewise responded to the appeal.

Mobile teams were organized and dispatched to areas other than Tokyo for collecting blood. Special railway cars were equipped to transport blood to advance depots in Southern Japan. Soon airlift was developed through the outstanding cooperation of the United States Air Force and delivery of blood to using agencies in Korea was made by courier.

After shipment of blood from the United States began to arrive in generous quantities as a result of the combined efforts of the people in civilian life, the American Red Cross and Military Agencies at home, it may be of interest to know that procurement of blood in the Far East Command continues to this day.

In August 1951 the gallon club of the Far East Command was organized consisting of donors who had given at least 8 pints of blood since the outbreak of the campaign. Nearly 50 members were on the roll of the gallon club by September 1951.

From January 1, 1951 to November 31, 1951 a total of 113,056 pints were supplied to medical installations in Korea and 28,213 pints to organizations in Japan. This supply was considered adequate, the reactions to administration were relatively small and there was uniform expression of approval of the entire blood program by patients and profession alike.

The difficult mission of the military forces of the United Nations has been made somewhat lighter by this tangible and personal evidence of vital support from the home front. This support must continue.

Prisoners of War

An enormous task confronted the Eighth Army when large numbers of prisoners of

war were taken. Included in this deluge of humanity were thousands desperately in need of medical attention. Provisional Field Hospitals were organized and equipped to provide medical service in accordance with and beyond the standards formulated by the Geneva Convention.

Supervision of professional care was the responsibility of United Nations Personnel. Among the prisoners of war a sprinkling of doctors was found and put to work treating their own people. Very few of these doctors possessed the training and experience comparable with our professional colleagues. Much supervision was necessary and effort was directed toward teaching and improving the level of medical care. Language barriers interposed difficulties, making this task slow and laborious.

It was a formidable undertaking to provide shelter, warmth, food, water, and sewage disposal. Large pits were dug to dispose of human excrement. It was a great relief to the POW's digging these pits to learn they were not digging their own graves. Eventually excellent sewage disposal systems were provided.

Separating and treating the sick and wounded was a continuous process. Attempts were made to segregate patients with communicable diseases from other types of illness. Many communist prisoners suffered from pulmonary tuberculosis. Tetanus was encountered frequently in contrast with its almost total absence among U. N. Forces, there being only one case reported to date. Special tents were designated for treating patients with this disease.

Definitive care was provided for all types of injuries. Osteomyelitis was treated aggressively by standard surgical procedures. Amputation stumps were revised in preparation for fitting prostheses. Pylons were furnished by using plaster of Paris buckets to which were attached sections of crutches and web straps. These were well received by the lower extremity amputees among which several were bilateral. Plans were underway to provide more permanent prostheses. Empyemas were treated by drainage and decortication. Clotted hemothorax and other complications of thoracic injury were given required surgical care. Plastic surgical procedures were undertaken with remarkable success. Neurorrhaphies were performed on scores of patients with severed nerves. Attention

was directed constantly toward treatment which would get patients ambulatory and rehabilitated with the aim of eventual restoration of function.

Mortality and Morbidity

The mortality rate for battle casualties receiving medical care in the Korean Campaign is gratifying low, according to the Surgeon General of the Army. The Medical Department may be justly proud of this achievement. It must be pointed out, however, that much remains to be done by the practice of sound principles to reduce preventable morbidity. A circular dressing, for example, placed upon an extremity may become excessively tight and produce severe ischemia from edema or bleeding into soft tissues during transportation and if neglected may result in death of the part necessitating amputation. An injured hand may not be splinted in position of optimum function over a prolonged period. This may result in severe disability, difficult or impossible to correct. Excessively large or multiple doses of morphine given to patients in wound shock may result in morphine poisoning when restoration of blood volume permits rapid absorption of the drug.

Preventable morbidity is not reflected in mortality statistics. Disregard of fundamental concepts in managing casualties may not terminate in death, but often prolonged disability, much suffering, or permanent loss of function may follow. Reduction of preventable complications is still a fertile field and a challenge for all charged with the responsibility of the care of the injured.

Civilian Defense

Civilian defense plans are concerned, among others, with preparation for the management of casualties should a major catastrophe befall us such as the detonation of an atomic bomb over a large city. While it is hoped the United States may be spared disasters of this magnitude there is no assurance in our uncertain world that our hopes will be realized. Should such tragedies occur, the implementation of plans by civilian defense can alleviate the confusion, the hopelessness, the suffering resulting therefrom.

Without some central agency to direct and coordinate the activities of those trained and willing to be of service, much unnecessary chaos must surely result. Where such a nerve center should be

placed cannot be predicted for none knows where disaster will strike. Alternate locations no doubt would need to be chosen and placed in operation in accordance with the exigencies of the circumstances. Regional centers might be extremely useful as subsidiaries of the central agency and communications established via portable radio with all units concerned.

The organization for rescue operations would of necessity include teams equipped to fight fires over a wide area. Rescue squads and groups of litter bearers would be required to seek and evacuate the wounded to specified points from which further evacuation could be accomplished. These points must be in radio communication with central or regional agencies which can provide means of transportation and direct where wounded and refugees may be taken.

Plans must include choosing strategically placed buildings such as school houses which can be converted to emergency hospitals. Buildings with large rooms not requiring elevators are suitable. These large rooms can be used as receiving, triage, shock, postoperative wards and operating rooms. It is far easier to handle many wounded in large rooms. These may be provided with sawhorses on which litters can be placed.

Depots for medical supplies would be required for emergency issue of necessary items and equipment to care for an unprecedented number of casualties. Means of obtaining replenishment of depot stocks would have to be found probably from neighboring cities or from distant places flown to the stricken area. Materials for replacing loss of blood volume in wound shock particularly whole blood is a tremendous problem.

Transportation of the wounded and refugees from the disaster zone would require much planning, personnel, and vehicles. Refugees and lightly wounded could walk or be transported by any available means. The seriously injured usually could not be evacuated by passenger motor cars. They could be evacuated by ambulance, truck, bus, railroad cars, litter jeeps, and helicopter. A great deal of coordination would be required to obtain personnel and vehicles to keep the stream of evacuation flowing in an orderly direction.

Medical personnel and assistants to provide emergency care as early as possible to the stricken would be desirable. Re-

sponsible individuals should sort the casualties into groups of lightly wounded needing minor attention and those seriously injured needing urgent surgical care. The urgent cases should be sent nearby to a provisional hospital for resuscitation and surgical management. The lightly wounded could be managed elsewhere in suitable quarters and with less urgency.

At the provisional hospital further triage would separate those suffering from wound shock from the other types of casualties. It is here that experienced doctors make the decision as to priority of treatment on the basis of their findings. Portable x-ray facilities would be invaluable to these doctors.

Teams of surgeons, anesthesiologists, nurses, and assistants would care for the casualties in accordance with the priority established. While it is possible for teams to work 24 hours or more for a time, relief must be provided if any degree of efficiency is to be maintained over long periods. Many times the capacity of work depends upon anesthesia. A shortage of anesthesiologists can readily curtail the number of patients who can be treated in any organization.

Large wards for postoperative care under the supervision of experienced doctors aid materially in treating injuries in epidemic proportions. Small rooms for two or three patients are usually undesirable and more difficult to supervise, to institute and to carry out postoperative measures. One Phelan Wangenstein apparatus for nasogastric suction, for instance, may serve several patients in a large ward.

It would be desirable to provide special facilities for surgical care of neurosurgical casualties. The available neurosurgeons could be concentrated in such a unit and to this unit patients with craniocerebral and spinal cord injuries could be sent. Such an arrangement provides better treatment and relieves general surgeons of a difficult and time consuming burden.

Thermal burns probably would constitute a large portion of the casualties. Consideration might be given to the open method of treatment as a substitute for so-called pressure dressing method. Shortage of supply of dressing material would no doubt be felt early in a catastrophe of major proportions.

The Nurse Corps

Nurses are again serving under the stress of combat. Throughout the difficult periods of the conflict, they have maintained the highest level of service both in keeping our fighting men fit and in giving selfless care to the sick and wounded.

Now the lot of a combat nurse is not easy. Much of her glamor vanishes as she dons a fatigue suit, field shoes, and helmet and is surrounded by bedding roll, mess gear and field pack. She was precipitously torn away from a relatively comfortable life elsewhere to join a unit in the hostile hills of Korea. Much of what she had accepted as part of a routine and comfortable existence disappeared. A hot bath became an unattainable luxury. Her helmet served as a protection for her head, as her wash basin, and as her tub. The latrine consisted of a one hole as private as a circus arena.

Sleep came sometimes after long hours of unremitting labor on one of many cots in her crowded quarters. Sleep eluded her sometimes because of overwhelming physical weariness. Sleep was commonly and unavoidably her sole means of recreation.

"Long Johns" replaced the dainty things women delight in wearing. Laundry was a serious and major operation. The inexorable tasks of each day occupied the time and attention of the nurse to the end that little consideration could be given to plucking eyebrows, manicuring the nails and fancy hairdos.

The nurse became adept at gathering her belongings at a moment's notice to move elsewhere, frequently to the rear. With the enemy pressing hard she knew what was meant when the order to evacuate came at mid day or mid night.

By truck, by bus, by ambulance, by jeep, in frigid cold, in intense heat, in rain, in mud, she left the old for the new. Another adjustment at another location must be made. Equipment and supplies must be unpacked and readied, for soon casualties again poured in as the familiar cycle was repeated.

Her recreation commonly was meager. There was no place to go, the evening gown but a memory, the ballroom but a fantasy, unrequiting toil was her lot. It was argued her life was too strenuous, too dangerous, too brutal. But it was not she

(Continued on page 227)

The Rationale of Prostatectomy

ROBERT LICH, JR., M. D.*

Louisville

The size of the prostate is never an indication for its removal. There are three basic reasons for considering prostatectomy: (1) obstructive or irritative bladder symptoms, (2) localized cancer in the prostate and rarely (3) prostatic infection with or without prostatic calculi.

Choice of Operations

This brings us to the subject for this evening, what kind of prostatectomy should be done and why? We feel that there are specific considerations that should dictate the method of prostatectomy. May I say here, as I have said many times before, the method of prostatectomy must be governed by the patient and his prostatic pathology rather than fit the hapless patient to the whims of the surgeon or the fashions of the day. Today, in contradistinction to only a few years ago, all methods of prostatectomy afford a safety heretofore unknown and this success tends to cloud our rational approach toward prostatectomy.

Definition of Prostatectomy

First, let us clarify the term 'prostatectomy.' In the usual sense of the word prostatectomy we mean the removal of the hyperplastic tissue and leaving behind the capsule and the compressed normal prostate. We are then, in the usual prostatectomy not removing the prostate, but we are excising the hyperplastic prostatic tissue or adenoma and thus the operation is in actuality a prostatic adenomectomy. A true prostatectomy is done only in instances of localized cancer of the prostate in which the entire gland is removed or in the rare instance of the chronically infected prostate with or without prostatic stones. However, to avoid confusion I will use the word prostatectomy to mean removal of the adenoma and radical prostatectomy to have reference to excision of the entire prostate and the seminal vesicles.

Fundamental Prerequisite

What then is the fundamental prerequisite of every prostatectomy? This can be simply answered by saying, the removal of all the abnormal tissue. In other words, all the adenoma or all of the prostatic tissue in cancer of the prostate. Any prostatectomy that fails to accomplish total excision of the disturbed tissue fails in its goal and the operator may be justly criticized for either his choice or the execution thereof. We believe that there is a logical approach to the question as to what type of prostatectomy should be done in each patient.

Four Methods of Prostatectomy

As all of you know there are four recognized methods of prostatectomy each with specific indications and sharply defined attributes. No one procedure affords the merits of all. The four methods of prostatectomy are: (1) suprapubic, (2) perineal, (3) retropubic and (4) transurethral.

Suprapubic Prostatectomy

The oldest of all methods is the suprapubic prostatectomy. There are three fundamental criticisms of this method: (1) the bladder is traversed to approach the prostatic pathology, (2) absence of positive hemostasis and (3) inadequate visualization of the prostatic bed or surgical site.

In all surgery we gain our purpose in a very odd way, we do harm to do good. With our incision we harm the skin, subcutaneous layer, fascia and all structures as we approach the pathology in question. To minimize this harm we must in every operation approach our disease site by the simplest and most direct route in an effort to do the greatest good with the least harm. Hence, there is little excuse to incise the bladder when the prostate can be approached by at least two other routes. There is, of course, the one specific indication for the suprapubic prostatectomy and that being when the bladder contains large stones which require the opening of the bladder for their removal. Now with the bladder open it is expedient to remove

Read before the Southwestern Medical Society, Princeton, October 28, 1952.

*Clinical Professor and Chairman of the Section on Urology, University of Louisville School of Medicine, Louisville.

the enlarged prostate which is most commonly the cause of bladder stone formation.

Positive hemostasis in suprapubic prostatectomy is difficult because of poor visualization of the prostatic bed. Many of the modifications of the suprapubic method introduced in recent years are directed at the correction of this fault. However, the continued insistence of opening the bladder rather than avoiding it and approaching the prostate directly is difficult to understand.

Perineal Prostatectomy

Retropubic and perineal prostatectomy are methods that approach the prostatic adenoma directly. The retropubic method approaches the adenomatous prostate anteriorly and the perineal procedure is a posterior prostatic approach. The capsule of the prostate is incised in both procedures and the adenoma enucleated. The individual bleeding vessels are visualized and ligated or coagulated. Postoperatively the bladder is drained by a urethral catheter and the prostatic capsule is tightly closed at the time of surgery. There is no apparent difference in the blood loss, shock or any of the other hazards of operation and the convalescence in both the perineal and retropubic operation is comparable. The decision between these two operations must be made upon clinical or anatomical considerations.

The great disadvantage of the perineal operation is the almost certain postoperative impotence. One of the reputed disadvantages of the perineal method is that of surgical complexity; we do not subscribe to this objection since any well trained surgeon with surgically experienced help can quickly and expertly learn the perineal operation. May I say now, that although we were originally perineal prostatectomists we find the retropubic operation to afford all the advantages of the perineal and in addition it preserves to a large degree the sexual potency of the individual which is often more important psychically than even the patient suspects. The other great advantage of the retropubic approach is that the operation can be accomplished with less surgical assistance. It must not be forgotten however, that the one great advantage of the perineal exposure is that the posterior lobe of the prostate is approached so that any lesion suggestive of early cancer can be accurately removed and studied histologi-

cally and the decision of radical removal of the prostate and seminal vesicles made and promptly executed.

Transurethral Prostatectomy

The fourth method of prostatectomy is the transurethral approach which is variously called by patients the "punch, scraping or boring" operation. In this procedure, like all methods of prostatectomy, success can be experienced only by removing all of the hyperplastic gland. This operation has the advantage that sexual potency is preserved in almost every instance and this to patients that have always enjoyed presumably enviable sexual prowess is a most important consideration. In patients of this description we use the transurethral method irrespective of other considerations except cancer.

The transurethral method of prostatectomy is particularly applicable to glands of small to moderate enlargement along with such instances of fibrous contractions or muscular hypertrophies of the bladder neck. It is true that a capable transurethral prostatectomist can remove a prostate of any size though in the removal of large glands the necessary time involved is much greater than either the retropubic or perineal operation. Furthermore, in large glands the ramifications of the hyperplastic prostatic tissue may be difficult to remove totally and unless this is done the primary prerequisite of prostatectomy, to remove all the abnormal tissue, is not fulfilled. The transurethral operation has the additional disadvantage that it is valueless in cancer except to relieve bladder neck obstruction in extensive inoperable cancer of the prostate. Transurethral prostatectomy is valuable in the very aged, but the associated shock is only a little less than that of an expertly done retropubic or perineal prostatectomy. In the event of an operative complication the hazards may be even greater. Uncontrolled postoperative bleeding may necessitate the superimposition of an open operative procedure. It is primarily true that the transurethral operation has limitations like any procedure, but these limitations are largely dependent upon the skill of the operator and skill in this operation is mastered with greater difficulty than in open surgery. To give some index as to the frequency with which we use this operation it may be stated that in 1951 some 87 per cent of our prostatectomies were accomplished by the transurethral route.

(Continued on page 228)

SPECIAL ARTICLES

THE PROBLEM CONFRONTING THE RURAL KENTUCKY MEDICAL SCHOLARSHIP FUND

RAYMOND F. DIXON

Louisville

Executive Secretary, Rural Ky. Medical Scholarship Fund

It is the purpose of the Rural Kentucky Medical Scholarship Fund to influence the distribution of doctors in Kentucky by lending money to medical students and obligating them to practice in the rural areas of Kentucky where their services are so badly needed. In achieving its objective the Fund has been successful. Perhaps too successful, since it has temporarily almost loaned itself out of business. The Board of Trustees, however, looks upon this situation with pride and has no regret at having loaned to the extent that last year it was necessary to reject several eager young students who needed help badly to obtain their medical education, although if the money had been available, their entrance into rural practice in five or six years could have been insured. The reason for the Board's lack of embarrassment is that the Fund contained just so many dollars and with these dollars it was possible to assist just so many doctors and communities. By lending money in prior years to all of the applicants who were worthy and, in the opinion of the Trustees who interviewed each of them personally, were well suited to rural practice, it was possible to convert more quickly the dollars that were available into medical services. The Board could have made fewer loans each year and there would have been no lean years before the fund began to rotate with repaid loans. The Board felt that doctors in active practice were more desirable than idle dollars in the bank.

The Rural Kentucky Medical Scholarship Fund totals \$155,125.00. Of this amount \$126,090.00 has been loaned to 71 students in 173 loans. Of the 71 students aided, 51 attended the University of Louisville School of Medicine. The remainder attended the Schools of Medicine of the University of Tennessee, Creighton Uni-

versity, Duke University, Emory University, Northwestern University, St. Louis University, Temple University, Vanderbilt University, and Meharry Medical College.

Eighteen graduates have entered rural practice in Gallatin, Leslie, Cumberland, Monroe, Ballard, Larue, Grant, McLean, Hardin, Perry, Butler, Grayson, Whitley, Russell, Lee, Todd, and Hopkins counties. Of these, thirteen are still practicing in their original locations, two are in military service, two practiced a sufficient length of time to repay their obligation to the fund and are now taking further internship or residency training, and one left the state without fulfilling his obligation for rural practice although he repaid the amount borrowed from the Fund.

Ten graduates are now interning. Nine of them will assume practice in rural areas approved by the Board during July of this year. The tenth has elected to take a second year of internship before assuming practice.

During the present school year ten students are Seniors, nine are Juniors, twelve are Sophomores, and five are Freshmen.

Students aided by the Fund are obligated to practice in a rural area for as many years as they receive loans. The Board greatly prefers to select students immediately following their acceptance by the School of Medicine as Freshmen and to assist them during the entire four years in medical school. Such a graduate will engage in rural practice for at least four years and will be more likely to take root in the community in which he practices and to remain there for life. Almost all of the \$43,000.00 which is at present unloaned is encumbered for the 36 students already in school who will require loans during each remaining year of their medical education. A part of the money is re-

served to meet the terms of restricted scholarships, the donors of which required the student to come from, or to return to, a specified area.

Original scholarships were donated on a basis of \$2,000 each, sufficient for \$500 for each of the four school years. But medical education has not escaped the effects of inflation. When tuition increased from \$500 to \$800, the Board raised the standard annual loan to the same amount. This had the effect of substantially reducing the number of students that could be aided and has added to the magnitude of the problem that now confronts the Fund.

The Fund has clearly demonstrated its power to influence the distribution of doctors in favor of rural areas. Its impact will continue to be felt through many years to come. The Rural Kentucky Medical Scholarship Fund has been as effective as the governmentally financed plans of a number of other states; yet, in Kentucky the money is repaid with 2 per cent interest after the doctor assumes practice, while in those states outright scholarships are given and are not repaid.

It is most regrettable that sufficient funds are not available to continue loans at the same rate that they have been made in the past. Yet, again this fall the Board will have no choice but to reject another promising group of first-year students unless funds become available from some source.

It is doubtful if any program that has ever been sponsored by Kentucky State Medical Association has been as beneficial to the profession from the standpoint of public relations as has the Scholarship

Fund. It answers once and for all the accusation that physicians discourage the education of more doctors to become their potential competitors. It demonstrates effectively the interest of the profession in providing more and better medical care for the people of Kentucky.

Members of the Board of Trustees give generously of their time in administering the Fund. They attend meetings at their own expense, often traveling for long distances. The members of the Board are: C. C. Howard, M.D., Glasgow, chairman; Mrs. Philip E. Blackerby, Louisville, Mrs. John E. Kirksey, Paducah, and Mrs. Charles Shelton, Louisville, past presidents of the Kentucky Congress of Parents and Teachers; Tarleton Collier, Louisville, associate editor of the *Courier-Journal*; George Caldwell, Louisville, vice-president of the Louisville Trust Company; Clarence Miller, Shelbyville, vice-president of the Kentucky Farm Bureau Federation; Paul Grubbs, Louisville, director of information of the Kentucky Farm Bureau Federation; Senator Cass Walden, Edmonton; R. Haynes Barr, M.D., Owensboro, president of K.S.M.A.; Hugh L. Houston, M.D., Murray; J. Murray Kinsman, M.D., Louisville, dean of the University of Louisville School of Medicine; Carl Norfleet, M.D., Somerset; G. L. Simpson, M.D., Greenville; Charles B. Stacy, M.D., Pineville, and Bruce Underwood, M.D., Louisville, secretary and general manager of K.S.M.A.

EDITOR'S NOTE: This article was written upon invitation of the President of the Association, R. Haynes Barr, M.D., in order to acquaint the Association with the status of the Rural Kentucky Medical Scholarship Fund and with the problem confronting it.

The fifth Annual Course in Postgraduate Gastroenterology will be given at the Hotel Biltmore in Los Angeles, October 15 to 17, it was announced by the National Gastroenterological Association. Surgical and medical coordinators, respectively, will be Owen H. Wangenstein, M.D., University of Minnesota Medical School, and I. Snapper, M.D., Cook County Hospital, Chicago. One complete session will be devoted to a clinic at the College of Medical Evangelists at Loma Linda. Enrollments are handled by the association, 1819 Broadway, New York 23.

The 31st annual scientific and clinical session of the American Congress of Physical Medicine and Rehabilitation will be held from August 31 to September 4, at the Palmer House, Chicago. All members in good standing with the American Medical Association are entitled to attend. In addition, annual instruction seminars will be held which are open to physicians as well as registered therapists. Full information may be had from the executive offices of the American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2.

SUMMARY OF SERVICES PROVIDED BY THE FIELD SECRETARY

W. VINSON PIERCE, M. D.*

Covington

In the practice of medicine today, as in no other time in the past, it can be truly said that "none of us lives unto himself." The interest of the public in all matters pertaining to medicine tends to spotlight all of our activities. It becomes increasingly necessary that as physicians we be able to justify our deeds and activities if we wish to maintain our system of medical practice and the good will of our public.

Likewise, the broader horizons of medical achievements today place on us greater responsibilities in making these benefits available to the people whom we serve.

For these reasons as well as many others we are seeing in recent years a tremendous growth in the work of "organized medicine," i.e., such bodies as the American Medical Association and the Kentucky State Medical Association with its component county societies.

Because of the great increase in the activities of these groups, it became apparent to the Council of K.S.M.A. and to the officers of the association that we would have to follow the example of many of our sister associations and employ a field secretary, or else be badly crippled in trying to carry out our program.

What are the functions of a field secretary? The answer can be briefly summarized in one sentence: The purpose of the field secretary is to make the Kentucky State Medical Association more effectively serve you and me and our colleagues throughout the state. In the accomplishment of this service, he is, in effect, responsible for bringing the headquarters office of the Kentucky State Medical Association to each county society and to its officers and members. As you will recall, the Kentucky State Medical Association has adopted a list of twelve objectives which constitute its long range program and are the basis for all of the varied activities of the association.

In order to work toward these objec-

tives and because there have arisen strong organized forces antagonistic to our system of medical practice, our profession has had to step up its own organized activities, as we have said. At the same time that the K.S.M.A. activities have grown, the work done by the headquarters office has become more complex. K.S.M.A. today is more than an organization which sponsors an annual scientific session for physicians. It carries on a myriad of activities for the doctors every day in the year on many fronts. Its work is continuous, diversified, and big.

Despite its complexity and magnitude, the success of K.S.M.A. still depends in large measure on "follow through" by the county medical society at the local level. The growth of the services performed by the headquarters office in Louisville supports, but does not supplant, the work of the county society. There must be close co-ordination between the state and local level if the individual county societies are to profit by the activities of the mother organization.

This is where the field secretary has one of his greatest responsibilities. It is he who serves the councilor districts and the county societies in their efforts to implement the state programs at the local level. He is an arm of the headquarters office operating in the field. In a sense, he is an activities co-ordinator.

In general, the field secretary will be a liaison man and a leg man. He will serve as a liaison between K.S.M.A. and the county societies, thereby providing a readily accessible channel for co-ordination of their activities.

He will be a reporter. He will report to county societies and their officers on K.S.M.A. activities, and he will report to K.S.M.A. officers on activity in the individual counties. The result should be a greater understanding by each of the problems, policies, and aspirations of the other. He will also report from county society to county society, enabling each society to profit by the knowledge and experience gained elsewhere in the state.

Presented before the annual County Society Officers Conference of the Kentucky State Medical Association, at Louisville March 5, 1953.

*Chairman, Education Campaign Committee.

Earlier in our discussion we enumerated some of the objectives of the Kentucky State Medical Association. In order to accomplish these objectives, the association has appointed numerous committees from its membership, each committee having definite duties and responsibilities. The work of our field secretary is concerned especially with the activities of six committees, viz.: Education Campaign Committee, Rural Health Committee, Legislative Committee, Committee on Medical Service, Diabetes Committee, and School Health Committee.

Briefly, I should like to discuss some of the specific projects which are being carried on through these committees and with which the field secretary is intimately concerned.

First, there is the work of the Education Campaign Committee, with which I have been associated for the past year or more. This committee has undertaken a long range program designed to foster better "public relations"; to improve some of the "sore spots" in our profession; to help keep the members of the profession informed of what is being done along these lines in other states and in the various sections of our state; to disseminate health education material to the public, etc. Our committee, alone, could utilize the full-time services of the field secretary, if he did not have other duties to occupy much of his time.

A project which our committee is anxious to put into effect is the proposed course for doctors' receptionists and secretaries, which is aimed at elevating one of the public relations areas closest to home.

Our committee has endeavored to furnish exhibits to large meetings such as the Kentucky State Fair and the Kentucky Education Association meeting. Two of these exhibits, for example, were about the distribution of the costs of medical care and about school health programs. These attracted much attention and favorable comment. We will continue to place such exhibits at these meetings, and it will be one of the functions of the field secretary to help furnish ideas for these.

Our field secretary will help the county societies interested in arranging for local radio stations to broadcast programs by furnishing to the stations some of the many transcribed programs which the A.M.A. Bureau of Health Education has

available, or by organizing and helping to prepare the material for "live" broadcasts on timely topics.

The Education Campaign Committee is especially anxious that the sale of pre-paid hospital and sickness insurance (Blue Cross and Blue Shield) be pushed throughout the state. As an experienced public relations man, with newspaper background, your field secretary could help the county society officers in lending support to enrollment drives.

Dr. Barr, our president, has expressed interest in having each county society devote at least one meeting yearly to the consideration of organizational work. Our field secretary as well as our executive secretary will be available for talks along these lines and will also be able to help the program committee of the county society secure the services of a councilor or officer of the state association, if desired.

These are but few of the Education Campaign Committee's projects.

As far as the time of the field secretary is concerned, one of the most exacting committees will be the Legislative Committee, although this will be true only at certain times.

Another committee which is drawing heavily on the time and services of our secretary is the Rural Health Committee. In his capacity as field director for the Kentucky Rural Health Council, he has the responsibility of advising with community leaders who desire to set up local rural health councils.

The work of the Diabetes Committee (with which the field secretary will assist), comes only once each year, but will require some time on the part of the secretary for a few weeks prior to the annual drive.

In addition to the duties which we have mentioned, there is much more work which the field secretary can do in preparing newspaper releases, distributing literature from the A.M.A., preparing or helping to prepare articles for the K.S.M.A. Journal, helping in the detail work of the headquarters office at our state association meeting, etc.

Those of you who have had the opportunity of meeting him and working with him will agree with me that we have been fortunate in securing Mr. John Guy Miller as our field secretary. Mr. Miller is a

(Continued on page 222)

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

ASSOCIATE EDITOR: J. P. SANFORD

L. H. South, M. D.: Book Review Editor J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.

George G. Greene, M. D.

T. O. Meredith, M. D.

Rufus C. Alley, M. D.

R. Arnold Griswold, M. D.

William R. Miner, M. D.

Everett H. Baker, M. D.

William P. Hall, M. D.

Frank H. Moore, M. D.

Sam H. Black, M. D.

O. Leon Higdon, M. D.

James E. Moore, M. D.

James W. Bruce, M. D.

Emmet F. Horine, M. D.

George W. Pedigo, Jr., M. D.

John L. Dixon, M. D.

E. W. Jackson, M. D.

Alvin C. Poweleit, M. D.

Samuel H. Flowers, M. D.

William O. Johnson, M. D.

Winston U. Rutledge, M. D.

Carl H. Fortune, M. D.

James M. Keeton, M. D.

William L. Woolfolk, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville	President-Elect
Charles B. Johnson, Russell	Vice-President
W. O. Johnson, 605 Brown Building, Louisville	Vice-President
G. Y. Graves, Bowling Green	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Eruce Underwood, 620 S. Third Street, Louisville	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah	1953
Second District Walter L. O'Nan, 237 Second St., Henderson	1953
Third District De'mas M. Clardy, Hopkinsville	1953
Fourth District J. I. Greenwell, New Haven	1953
Fifth District Richard R. Slucher, Buechel	1954
Sixth District L. O. Toomey, Bowling Green	1954
Seventh District Branham B. Baughman, Frankfort	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington	1954
Ninth District J. R. Cummings, Flemingsburg	1953
Tenth District J. Farra Van Meter, 183 N. Upper Street, Lexington	1955
Eleventh District Hugh Mahaffey, Richmond	1953
Twelfth District Carl Norfleet, Somerset	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman	1953
Fourteenth District Paul B. Hall, Paintsville	1953
Fifteenth District Edward Wilson, Pineville	1954

EDITORIALS

FLEDGLING TIME

The season of graduation is at hand for many. Throughout the nation young people are leaving the relatively sheltered pattern of the school room to assume new responsibilities. Be they graduates from grade school, high school, or medical school, they are entering a period of transition.

To a greater or lesser degree each must learn to develop a greater self-sufficiency, to think for themselves, to adapt their viewpoints to working in a world they inherit as they find it. We have an opportunity to help them in this time of adjustment.

All of us who have endured the sometimes painful process experienced by the fledgling can provide aid and comfort—tangible help and sincere understanding

to those who are now to fly alone. We who call ourselves “doctors” perhaps have a special call upon us; for the word “doctor” first meant teacher. Our experience permits us equally to help the grammar school graduate who will work in the fields and the neophyte physician who must bear more complex burdens.

The sympathy and understanding we offer the inexperienced may be unbounded, but it must be intelligent. If a prop is extended, see that it is a light one, on which they can not too long lean. The decisions we make in extending a hand to these youngsters can only be made by us in the light of good sense. Their validity is important; for with them we pay part of our debt to tomorrow.

AN AGRICULTURAL ECONOMIST LOOKS AT RURAL HEALTH

One of the highlights of the Second Annual Kentucky Rural Health Conference held recently in Louisville was the address by Frank W. Peck, managing director of The Farm Foundation.

The Farm Foundation is a non-profit corporation established through private endowment to conduct research and information service for the purpose of helping the farmer improve standards of rural life in all its aspects. Established by Frank Lowden and Alexander Legge, it is non-governmental and espouses no political position. Mr. Peck is an agricultural economist who, with many years experience in agriculture extension work, came to The Farm Foundation from the St. Paul Federal Land Bank, of which he was president.

In his talk, Mr. Peck cited the importance of “making more effective use of existing facilities, services, and resources in rural areas.” His view that local people do not make full use of the resources at their command is a major factor in the rural health council movement’s propriety.

Only through an understanding of their own problems and abilities by the people at the grass roots level can intelligent advancement of the health progress pattern reach the optimum.

Mr. Peck called attention to the role of survey techniques in helping the people ascertain what additional facilities they need or want for their own communities. “It requires wise interpretation of the results of surveys that decide whether or not real values can be measured accurately and from which logical and wise conclusions can be reached.” He expressed the view that a study now being made in Michigan by The Farm Foundation may serve as a guide to local groups.

The importance of keeping what they get, which is of course related to using what they have, was stressed by Mr. Peck in his evaluation of the people’s local rural health problem. The test, he stated, “does not lie in *obtaining* new facilities and services, but in *maintaining* what is enthusiastically added to local communi-

(Continued on page 223)

President's Page

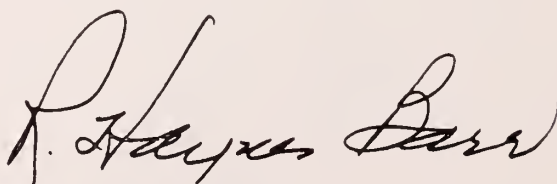
The physician has two major obligations with reference to voluntary health insurance: (1) to further its growth through every means at his disposal, and (2) to safeguard it against abuses which, if unchecked, could ultimately destroy it.

The good of the patient is of first importance. Voluntary plans such as Blue Cross and Blue Shield are good for him, as a patient, because the economic assurance they provide are a source of mental satisfaction and physical well-being. They are good for him, as an American, because they afford him a chance to budget major medical costs without loss of freedom.

Preservation of the American Heritage of Freedom in medicine is, of course, also important to the physician. While it is true that in some instances health insurance has provided the doctor with economic stability where none before existed, its greatest boon to the profession—as well as to the patient—lies in the bulwark it provides against governmental interference in medical practice. It permits the physician in America to practice medicine as he wants—the best medical service in the world.

Voluntary health insurance will fail, however, unless it has the continued support of the doctor. Many people who ought to be covered are not. We have a responsibility to encourage their participation. Likewise, if doctors sanction uncalled for and unnecessary demands by the patient for insurance benefits, they will undermine the actuarial strength and the low premium structure of the plans.

You and I have a responsibility to ourselves and our patients to meet our obligations on both of these major fronts.

A handwritten signature in cursive script, reading "R. Hayes Barr". The signature is written in dark ink and is positioned above the printed name.

PRESIDENT

ORGANIZATION SECTION

Dr. Holinger to be Featured at KSMA Annual Session



Dr. Holinger

Paul H. Holinger, M.D., Chicago, professor of bronchoesophagology, department of otolaryngology, University of Illinois College of Medicine, will be one of the nationally recognized guest speakers who will appear on the scientific program of the 1953 Kentucky State Medical Association Annual Meeting, to be held in

Louisville, September 22, 23, and 24.

R. Haynes Barr, M.D., President, has announced that Doctor Holinger's subject will be "Bronchial Obstruction: Its Significance in Pulmonary Diseases." This paper will be presented at 9:30 a.m., Wednesday, September 23.

Dr. Holinger graduated from Northwestern University School of Medicine in 1933. He is senior attending bronchoesophagologist at St. Luke's Hospital, the Children's Memorial Hospital of Chicago, and the Research and Educational Hospitals of the University of Illinois College of Medicine. He is consulting bronchoesophagologist at the Municipal Tuberculosis Sanitarium of Chicago and the U. S. Naval Hospital at Great Lakes. He is a fellow of the American Academy of Ophthalmology and Otolaryngology, and the American College of Chest Physicians.

Dr. Holinger will also be the principal speaker at the luncheon meeting of the Kentucky Chapter of the American College of Chest Physicians at noon Wednesday, September 23. His topic for the chest physicians meeting will be "Congenital Anomalies of the Trachea and Bronchi."

U of L, KSMA to Sponsor Seminar June 8 and 9

The Medical Seminar of the University of Louisville School of Medicine and the Kentucky State Medical Association will be held June 8 and 9, at the Kentucky Hotel Terrace Room, Louisville, it was announced by Herbert L. Clay, M.D., director of the Postgraduate Refresher Training Department of the school.

All physicians of Kentucky and surrounding states are invited, and eight hours credit will be given to members of the Academy of General Practice who attend the full course.

Other sponsoring organizations are the Jefferson County Medical Society, Kentucky Academy of General Practice, Kentucky Committee of Fractures and Other Trauma of the American College of Surgeons, Kentucky Division of the American Cancer Society, Louisville Regional Blood Center of the American Red Cross, and the Kentucky Heart Association.

Program details available at press time were as follows:

Monday, June 8

9:00-10:00 Registration

10:00-10:15 Introduction and Orientation

10:15-12:00 Program by Kentucky Cancer Society

2:00- 2:30 Heart program

2:30- 3:00 Richard L. Sutton, Jr., M.D., associate professor of dermatology, University of Kansas School of Medicine, Kansas City, Missouri: "Contact Eczema."

3:00- 3:30 James G. Hughes, M.D., associate professor of pediatrics, University of Tennessee, Memphis, Tennessee: "The Management of Acute Nephritis in Children."

3:40- 4:10 George J. Curry, M.D., Flint, Michigan.

Tuesday, June 9

9:00-12:15 **DISEASES OF THE BLOOD.** Discussions by Marion F. Beard, M.D., associate professor of medicine and chief of the Hematology Section, University of Louisville School of Medicine; Everett H. Sanneman, Jr., M.D., clinical instructor in medicine, University of Louisville; B. K. Wiseman, M.D., professor of medicine, Ohio State University College of Medicine; and William Robert Pitney, M.D., fellow in hematology, University of Louisville.

From 2 to 3 p.m. on June 9, the Institute for Medical Research of the University of Louisville School of Medicine, located on the second floor of the Louisville General Hospital, will demonstrate various types of clinical, investigational procedures now being carried out in the Institute.

Correction: 13th District Program

The Journal staff sincerely regrets the errors made on page 166 of the April issue in reporting the first session of the program planned for the Thirteenth Councilor District meeting, May 12. The names of M. D. Garred, M.D., and Leslie D. Urban, M.D., were inadvertently misspelled, and the first name of Albert L. Allen, M.D., was incorrectly listed. All three physicians practice in Ashland.

Delegates Endorse the Eisenhower Plan in Special Session

Bruce Underwood, M.D., Louisville, and W. Clark Bailey, M.D., Harlan, represented the Kentucky State Medical Association at the special Washington session, March 14, of the American Medical Association House of Delegates, which unanimously supported the administration's request for endorsement of the plan to establish a new Department of Health, Education, and Welfare, but reserved the right to press for establishment of an independent Department of Health.

Congressional action followed and Mrs. Oveta Culp Hobby, Federal Security Administrator, was nominated and confirmed for the new cabinet post.

The special session, fourth in A.M.A. history, was addressed by President Eisenhower, Senator Robert A. Taft, U. S. Representative Walter Judd, A.M.A. President Louis H. Bauer, M.D., Elmer L. Henderson, M.D., Louisville, and Dwight Murray, M.D., Napa, California, all of whom urged the action.

In its report to the House of Delegates, recommending the action, the A.M.A. Board of Trustees said, in part, "This provision is a step in the right direction which should result in centralized co-ordination under a leader in the medical field of the health activities of the proposed department. Health, therefore, is given a special position. The proposed plan, properly administered, will permit more effective co-ordination and administration of the health activities of the new Department without interference or control by other branches." The full statement and a companion piece by Doctor Bauer appeared in the March 28 issue of the Journal of the A.M.A.



Elmer L. Henderson, M.D., Louisville, past president of the A.M.A. and chairman of the A.M.A. Liaison Committee with the Federal Security Agency, (second from right) pose with President Dwight D. Eisenhower and Mrs. Oveta Culp Hobby, Federal Security Administrator, just prior to the A.M.A. House of Delegates session in Washington, March 14. Others in the picture are E. Vincent Askey, M.D., Los Angeles, vice-speaker of the House of Delegates (next to President Eisenhower); E. J. McCormick, M.D., Toledo, president-elect of the A.M.A., who September 22, will speak at the President's Luncheon of the K.S.M.A. Annual Meeting; Dwight H. Murray, M.D., Napa, California, chairman of the board, A. M. A.; and Louis H. Bauer, M.D., Hempstead, N. Y., president of the A.M.A.

Revised Law Proposed to Extend Doctor Draft Two Years

Proposed legislation to replace Public Law 779 (Doctor Draft act) which expires June 30, 1953, and extend the draft to July 1, 1955, was introduced in the Congress on April 1, as S. 1531 by Senators Leverett Saltonstall and Lester Hunt.

Major provisions of the bill as outlined by the Washington A.M.A. Office are (a) continuation of four present priority groups, (b) service credit to co-belligerents of World War II, (c) retention of 24-months service requirement, (d) retention of maximum induction age at 51, (3) liability for recall of men who served less than a year since June 25, 1950, but exemption during two-year life of the act for those who served less than a year, and (f) liability of aliens to service.

No mention was made in the bill of the \$100 equalization pay which is included in the Career Compensation Act. The Defense Department in its proposals for extending and amending the Doctor Draft Law disclosed earlier at a Pentagon meeting with representatives of the American Medical Association and other professional associations had recommended continuation of the special pay provision.

Other recommendations by the Defense Department were continuation of national, state, and local advisory committees to Selective Service with added authority respecting residents and faculty members; automatic termination of reserve commissions on completion of stipulated active duty (retroactive to September 9, 1950); and recall of reservists at rank "Commensurate with professional education, experience, or ability," without limitation on number of higher grades for physicians.

AMA Inaugural Ceremony to be Broadcast by ABC

Members of the Kentucky State Medical Association not present at the proceedings of the American Medical Association at New York this June can hear their own annual meeting headline speaker, Edward J. McCormick, M.D., of Toledo, inaugurated as president of the A.M.A. over the radio network of the American Broadcasting Company on Wednesday night, June 3, according to an announcement by A.M.A. headquarters in Chicago.

The broadcast from the 102nd annual session of the A.M.A. will be heard over more than 300 A.B.C. stations in this country, Alaska, and Hawaii, 10-10:30 p.m. in the Eastern Time Zone and 9-9:30 p.m. in all other time zones, except

where local program schedules create a variation. The inaugural ceremony will actually occur on Tuesday night, June 2, at the Commodore Hotel and will be transcribed for radio distribution on Wednesday night because of expected disruption of radio and television time by news incident to the coronation of Queen Elizabeth II.

Also originating from the A.M.A. meeting will be the popular "Dr. Christian" radio program featuring the well known actor, Jean Hersholt. This program will be staged and transcribed one hour before the inaugural ceremony in the Grand Ballroom of the hotel and be rebroadcast Wednesday night over the Columbia Broadcasting System.

Hold Pediatric PG Course Weekly May 7 to June 25

All physicians are invited to attend the Pediatric Postgraduate Course sponsored by the Kentucky State Medical Association, University of Louisville, and the American Academy of Pediatrics to be held at the Children's Hospital, Louisville, beginning May 7, and ending June 25, with meetings from 9 a.m. to 12 noon on the eight consecutive Thursdays.

Inquiries should be sent to W. W. Nicholson, M. D., 1974 Douglass Boulevard, Louisville 5, who is state chairman of the American Academy of Pediatrics.

The postgraduate course will consist of organized discussions of various subjects and presentation of interesting cases from the Pediatric Service at the Children's Hospital and will be under the direction of Leonard T. Davidson, M.D., professor and head of the Department of Pediatrics, University of Louisville School of Medicine, according to Joseph A. Little, M.D., associate professor of pediatrics. The subject matter includes:

- 1) The use of isonicotinic acid hydrazid and its derivatives in tuberculous meningitis and other tuberculous infections.
- 2) Poliomyelitis and its after care.
- 3) The emotional aspects of well-baby care.
- 4) Techniques of infant feeding.
- 5) Immunization with emphasis on gamma globulin in the prevention of measles, hepatitis, and poliomyelitis.
- 6) Prophylaxis in rheumatic fever.
- 7) Use of the X-ray in pediatrics.
- 8) The care of common respiratory infections and common contagious diseases.
- 9) Advances in pediatric surgery.

Lectures and discussion will be given by members of the Department of Pediatrics of the School of Medicine and invited guests.

U of L Faculty, Friends Seek Funds to Endow "Dean Moore Chair"

Sam A. Overstreet, M.D.

Immediately after the death of John Walker Moore, M. D., on November 10, 1952, the faculty of the School of Medicine initiated a "memorial fund" to which contributions were received by



Dean Moore

the end of the year in the amount of about \$25,000.00. With a wider vision, the plan developed to seek an endowment fund to establish a new Chair of Medicine in his name and to invite all who knew and loved him, physicians and others alike, to contribute. It is estimated that an adequate fund for this purpose

will be five-hundred thousand dollars.

This is a large undertaking—bigger than any the school has yet attempted. Dean J. Murray Kinsman feels, however, that it is at the present time the most urgently needed among all of the projects now underway or proposed, to raise money sufficient to provide a full-time professorship for a teacher of medicine of sufficient calibre to head that department. He is devoting the full measure of his time and energy to the improvement of the school, which all of us know must keep its traditional place among the very best of our teaching and research institutions. As alumni and friends we must not fail in this enterprise.

Dean Kinsman and Spafford Ackerly, M. D., representing the faculty, asked me to undertake the general chairmanship of this campaign. Because I am a member of the faculty as well as an alumnus, I am vitally interested in the welfare of the school; because, as one of Dr. Moore's early residents, I looked upon him as my Father in Medicine; because no man living holds him and his work and contribution to this school in higher regard than I, it was a challenge which I could not, and had no desire to decline.

The membership of the Kentucky State Medical Association will hear through this Journal and through personal letters of the progress made. You will be requested to give in liberal

proportion to your interest and faith in the school and its dean. Contributions and pledges must be in the largest amounts we can afford, and from every member who has the interest of medical education in Kentucky seriously at heart, if we are to succeed. Of course, the desired goal cannot be reached by the giving of doctors alone—but, frankly, theirs must constitute the major part of the fund. A host of Dr. Moore's friends and ours, as well as industrial concerns having an interest in better medical care in Kentucky, will be urgently invited to join us.

It must be understood at the outset that all money contributed will be placed in good securities by men experienced in investing, that the fund will be separate and apart from other endowments, that only the income from the fund may be used, that regardless of the amount achieved in this campaign, it will establish a perpetual endowment to which new contributions may always be made. Money given is deductible from income tax and may be credited as a donation to medical schools through the agency of the Medical Education Fund of the American Medical Association.

Let us work together to establish a fitting memorial to our beloved former dean, a man whose name is great in American, as well as in Kentucky Medicine; and let us thereby make a significant step forward toward better medical education and care in our state.



University of Louisville School of Medicine

Dr. Loosli Heads Speaker List for Technologists, June 17-18



Dr. Loosli

Clayton G. Loosli, M. D., professor and chief of preventive medicine at the University of Chicago Department of Medicine, will speak on "Newer Knowledge Concerning Histoplasmosis" at the first scientific session of the annual meeting of the American Society of Medical Technologists at 8:30 a. m., June 17, in the Crystal Ballroom of the Brown Hotel, Louisville, it was announced by Sister M. Simeonette Savage, M.T., Louisville, chairman of the program committee.

Dr. Loosli is a consultant on medical research for the Great Lakes Naval Training Station, for the Surgeon General's Office, for the National Institutes of Health, and on communicable diseases for the Public Health Service. He is editor of the Journal of Laboratory and Clinical Medicine and advisory editor of the Journal of Infectious Diseases. Numerous contributions to literature have been made from his studies on histoplasmosis.

Members of the Kentucky State Medical Association are invited to attend the scientific program, June 17, and 18, at the Brown Hotel, according to Miss Mary Benedict Clark, M. T., Louisville, general chairman of the meeting. Special features of the program are a paper on "Exfoliative Cytologic Technics" by Miss Charlotte M. Street, chief technologist, Papanicolaou's Cytology Laboratory, Cornell University Medical College, New York, and a roundtable discussion on the Rh Factor lead by Miss Helen Madden, M. T., Boston Blood Grouping Laboratory, Boston.

Some distinguished out-of-state physicians who will address the meeting and their subjects are: Griffith E. Quinby, M.D., senior surgeon, U. S. Public Health Service, Savannah, Georgia, "The Interpretation of the Serological Tests for Murine Typhus"; Edna H. Sobel, M.D., research associate, University of Cincinnati College of Medicine, Cincinnati, "Diagnostic Methods in Endocrinology"; and James H. Gosman, M. D., assistant professor of dermatology, Indiana University Medical School, Indianapolis,

"Clinical and Laboratory Diagnosis of Superficial and Deep Fungous Diseases."

Among the more than 20 prominent guest-speakers are others who will discuss hematological subjects. They are Lawrence Berman, M. D., professor of hematopathology, Wayne University College of Medicine, Detroit; Opal E. Hepler, M.D., associate professor of pathology, Northwestern University Medical School, and director of clinical laboratories at Pasavant Memorial Hospital, Chicago; Robert Jones Rohn, M. D., assistant professor of medicine and director of hematological research, Indiana University School of Medicine, Indianapolis; and Raphael Isaacs, M. D., senior attending physician in hematology, Michael Reese Hospital, Chicago.

Huff Elected President, Delegate of U of L Student AMA

John Huff, Louisville, a junior student at the University of Louisville School of Medicine, was elected president of the University's chapter of the Student American Medical Association at a meeting April 13, and was re-elected delegate for the chapter to the national body for the 1953-54 school year, according to Peter Overstreet, senior student and retiring president.

Other officers elected were Jim Marvel of LaGrange, a sophomore, vice-president, and Nancy Hinkle of Paris, a junior, secretary and treasurer. Mr. Huff, who, as delegate, will attend the annual meeting of the S.M.A. at Chicago in June, will be accompanied by Mr. Marvel and Tom Heavern of Louisville, a freshman, who will observe the proceedings of the national student organization as representatives of their respective classes. This meeting, previously held in December, has been moved forward to June.

Financial support for the expenses of the delegate and the two lower classmen will be met in part by a 50-cent assessment of each of the 250 chapter members. A personal contribution was made by Richard Taylor, M.D., associate professor of pathology, who is the faculty advisor to the student chapter.

Mr. Overstreet expressed his appreciation to the Kentucky State Medical Association for its contribution to expenses of the delegate and to the headquarters staff for its co-operation and support during his administration.

Kentucky Radio Stations Carry AMA Health Programs

A number of Kentucky radio stations are scheduling transcribed health programs under county medical society sponsorship, according to an announcement by W. Vinson Pierce, M.D., chairman of the Kentucky State Medical Association Education Campaign Committee. The programs, designed for lay audiences, are a development by the A.M.A. Bureau of Health Education.

Four stations already have the programs on the air. They are: WNGO, Mayfield, which is currently broadcasting "Melody of Life"; WLBj, Bowling Green, "The Living Proof"; WIEL, Elizabethtown, "Time Out," and WNBS, Murray, "The Best Is Yet To Be." Other stations will begin broadcasts this month.

The programs, which are professionally produced, employ a variety of radio formats. Some make much use of music, such as "Melody of Life," which consists of individual programs devoted to noted composers, their lives, and the illnesses with which they were afflicted. Some are interview programs; these include "The Living Proof," which has been described by listeners as "terrific." Still others make use of the dramatization approach; "The Best Is Yet To Be" is of this type.

The Education Campaign Committee, has extended an invitation on behalf of the committee for any society interested in making the broadcasts available to their own radio station to contact the K.S.M.A. headquarters office. More than 20 different program series, each consisting of 13 fifteen-minute programs, are available.

Broadcast schedules for each station will be announced in **The Journal** as the information becomes available.

Nearly 37,000 physicians contributed more than \$3,150,000 in direct support of medical education last year according to the A.M.A. This total, however, does not include amounts given for building, endowments, scholarships, research and other special purposes. Donald G. Anderson, M.D., secretary of the A.M.A.'s Council on Medical Education and Hospitals, announced that reports from 76 of the country's 79 medical schools indicate that more than 29,000 doctors gave \$2,258,534 directly for teaching budgets. The American Medical Education Foundation raised \$906,553 of the total from more than 7,000 individual contributors.

Rural Health Council Movement Gains Impetus in Kentucky

Impetus has recently been given to the rural health council movement at widely separated points in Kentucky according to reports received by Walter L. O'Nan, M.D., who is chairman of the Kentucky Rural Health Council and the Kentucky State Medical Association Rural Health Committee.

"This heightened interest is reflected in the formation of local rural health councils, the heightening of activity by those already in existence, and discussions of the movement before various groups throughout the state," Dr. O'Nan said.

"Important among the latter have been the district meeting of the Farm Bureau Federation women. Mrs. Thomas E. Roberts, Farm Bureau Women director, has indicated that half of each of the eight district meetings being scheduled or already held are devoted to this subject."

The Owensboro-Daviess County Rural Health Council, which was established in February, has undertaken three major projects: (1) support of a strict ordinance on trash and garbage collection, (2) elimination of privies in Owens-



C. C. Howard, M.D., Glasgow, chairman of the board of trustees of the K.S.M.A. sponsored Rural Kentucky Medical Scholarship Fund, relates the history and operation of the fund at the Kentucky Rural Health Conference in Louisville, March 11. Next to Dr. Howard (reading from the left) are Frank J. Welch, Lexington, dean, University of Kentucky College of Agriculture, who presided at the dinner meeting; Frank W. Peck, Chicago, managing director, The Farm Foundation, who shared the spotlight with Dr. Howard; and Mrs. C. C. Sparks, president-elect of the K.S.M.A. Auxiliary.



R. Haynes Barr, M.D., president of K.S.M.A., greets state-wide conferees at the Second Annual Kentucky Rural Health Conference, March 11, in Louisville. Others shown are (from the left) Mrs. Jesse Shipp, Glendale, state chairman, Kentucky Farm Bureau Women; J. E. Stanford, St. Matthews, executive secretary, Kentucky Farm Bureau Federation; Walter L. O'Nan, M.D., chairman of the K.S.M.A. Rural Health Committee, Mrs. James G. Sheehan, Danville, president, Kentucky Congress of Parents and Teachers; and R. C. Klusendorf, D.V.M., Terre Haute, Indiana, former executive secretary, American Veterinary Medical Association.

boro and promotion of standard privies for all farm homes, and (3) a campaign for rat control.

In Robertson County, which formerly organized its rural health council March 31, three projects have also been agreed upon: (1) an educational campaign to stimulate better follow-up by parents on defects found in school children through the school examinations, especially dental, (2) a clean-up drive to eliminate health hazards in both Mount Olivet and the rest of the county, and (3) program to test individual water supplies throughout the county to the end that defective sources may be corrected. The latter will be initiated through a survey of 100 home water sources with the Boy Scouts serving as canvassers.

Menifee County's Rural Health Council, with D. L. Graves, M.D., Frenchburg, as chairman, was organized formally March 10. Included in its program as initially set forth are the Red Cross blood bank, the Crippled Children drive, the Cancer campaign, sanitation improvement, and procurement of a dentist.

Adair County Rural Health Council, whose work on nutrition was featured at the Second Annual Rural Conference, is continuing this project. Evidence indicates a rise in nutritional levels in the county as a result of the program. Citizens in Scott County, who met at the invitation of the Farm Bureau Women, have organized a steering committee for the purpose of determining interest in formation of a council there.

"The Kentucky Rural Health Council endeavors to make its position perfectly clear that the rural health council movement in the state is a voluntary co-operative effort, the demand for which must come from the people in their own community," Dr. O'Nan reports. "While we are pleased to discuss with anyone the advantages which may possibly accrue from such a council, the success of the movement depends on local vision. The council must not be a superimposition from any state or national organization.

"While this may mean a slow building process, it should produce substantial councils in which all of the people can counsel together and which all groups can conscientiously support."

Technical Exhibit Space for 1953 Session Rented in Three Days

All space in the technical exhibit hall at the Columbia Auditorium for the Annual Meeting, September 22 to 24, was sold three days after being offered, Carlisle Petty, M.D., Louisville, chairman of the Committee on Technical Exhibits, announced.

Dr. Petty said that it formerly took from three to four months to sell the 60 booths. He said his committee felt that this change was due to the splendid response of the membership to his committee's campaign to have all who at-

tend the Annual Meeting to visit each exhibitor's booth.

Booth space is offered first to the companies who patronized the exhibit hall the year before, it was pointed out, and then the prospectus is sent to the regular mailing list a week later. For the past two years, Dr. Petty stated, it has not been necessary to send the prospectus to the mailing list as there is practically no turnover.

"Our committee is glad to note that attendance at the Annual Meeting continues to grow. We know that an excellent scientific program is being planned for the 1953 meeting. We hope that we have an even larger attendance this year and that all will visit each technical exhibit," Dr. Petty said.

Blue Shield Speaker Available

County Medical Societies or other organized medical groups who desire a speaker on the Blue Shield—the doctors' own plan—may now request speakers through the Kentucky State Medical Association.

The tremendous growth of Blue Shield in Kentucky gives increasing importance to a knowledge by the doctor of the principles and operation of this non-profit plan. This plan was organized by physicians in 1949 and already has over 164,000 members.

Ky. Public Health Meet Draws 600, Hears Drs. Underwood, Barr

Close to 600 health officers, sanitarians, nurses, administrative personnel, guests, and others attended the annual convention of the Kentucky Public Health Association at the Henry Clay Hotel, Louisville, April 8 to 10.

R. Haynes Barr, M.D., president of the Kentucky State Medical Association, and Bruce Underwood, M.D., K.S.M.A. secretary and general manager, and Kentucky Commissioner of Health, were featured speakers at the meeting's opening session. Dr. Barr's talk was entitled "Keep Your Eye on Those Things You Cannot See." Dr. Underwood reviewed the progress made in Kentucky public health and outlined the task ahead.

Sam Moore, Greensburg, public health administrator for Green County and Adair County Health Departments, was elected and installed as president of K.P.H.A. Miss Mary A. Gallagher, public health nurse for Oldham County, was named new president-elect.

Dr. Willis Named KSDA Pres.-Elect As Dr. Lyons Is Installed

E. A. Willis, D.D.S., Owensboro, was named president-elect of the Kentucky State Dental Association as O. M. Lyons, D.D.S., Morehead, was installed as the 1953-54 president at the Association's Annual Meeting in Louisville on April 8.

Dr. Willis, fellow townsman of R. Haynes Barr, M.D., president of the Kentucky State Medical Association, has long been active in dental organization affairs. Dr. Lyons is a member of the State Legislature.

Bruce Underwood, M.D., Louisville, K.S.M.A. secretary and general manager, addressed the dentists on the opening day of their annual meeting. Dr. Barr and J. Duffy Hancock, M.D., Louisville, K.S.M.A. president-elect, also attended some of the meetings.

Diabetes Committee to Plan Drive

Preliminary plans for the 1953 Diabetes Detection Drive sponsored by the Kentucky State Medical Association will be considered by the K.S.M.A. Diabetes Committee at a meeting in Louisville, May 7, it was announced by Carlisle Morse, M.D., committee chairman.

The committee will discuss in some detail the 1952 campaign, whose results exceeded those of the previous drive by more than 100 per cent, from the standpoint of developing an even more successful drive in 1953. In making the announcement, Dr. Morse said the degree of success in this year's drive and the continued success in future campaigns will in large measure depend on the completeness with which reports are made each year on the county drive results—so important to the correct analysis of the project.

School of Medicine Makes Changes; Announces Award Winners

Significant changes, awards, and appointments occurred recently at the University of Louisville School of Medicine, according to James A. Kennedy, Ph.D., professor and chairman of the department of microbiology.

The A. Blaine Brower Traveling Scholarship was awarded by the American College of Physicians to Walter S. Coe, M.D., assistant professor of medicine.

The Floyd Brewer Memorial Foundation has been established at the school by Walter E. Brewer, M.D., alumnus, to render assistance to medical education and research.

Frank Shook, Jr., director of visual education, has received an award for a color movie entitled "Stab Wounds of the Heart." Mr. Shook is in charge of the visual aids used by essayists at the Kentucky State Medical Association Annual Meeting.

John F. Marchand, M.D., former instructor in medicine at Cornell University of Medical School, was appointed associate professor in the department of medicine and will serve as medical director of the newly organized University of Louisville Poliomyelitis Respirator Care Center.

New sections established in the department of medicine are: rheumatic diseases, with Robert L. McClendon, M.D., chief; hematology, with Marion F. Beard, M.D., chief; and endocrinology, with Robert Hendon, M.D., chief.

Hospital Group Elects Frederick

Bentley Frederick, administrator of Children's Hospital, Louisville, was named president-elect of the Kentucky Hospital Association at its convention meeting in Louisville, March 26, and will serve in 1954-55.

Miss Helena Hughes, Riverside Hospital, Paducah, was installed as president of the association for 1953-54, succeeding Walter B. Phelps of the Good Samaritan Hospital, Lexington.

Annual Golf Committee Named

Sam A. Overstreet, M. D., Louisville, has been named chairman of the sub-committee on golf, it was announced by J. Duffy Hancock, M. D., Louisville, chairman of the Committee on Arrangements for the Annual Meeting of the Kentucky State Medical Association.

As soon as the committee completes arrangements for the 1953 tournament, the details will be announced by Dr. Overstreet in the Journal. Other members of the committee are: Clifton G. Follis, M.D., Glasgow; W. Vinson Pierce, M. D., Covington; William C. Wolfe, M. D., Louisville; and James Blackerby, M. D., Stanford.

Results of a recent survey made by Medical Economics magazine show that the average physician in private practice writes 2,517 prescriptions a year—one for every three patients, and that the younger doctor of less than ten years experience tends to write about 70 per cent more prescriptions than the man with 30 or more years experience.

Plans School Health Conference

A school health education course, under sponsorship of the Division of School Health, Kentucky State Department of Health, and the University of Kentucky, will be presented for public health and education personnel at the University of Kentucky from June 4 to 20.

Harry K. Dillard, M.D., director of the health department's Division of School Health, has indicated that several physicians will be called upon as speakers including R. Haynes Barr, M.D., Owensboro, president of the Kentucky State Medical Association; Bruce Underwood, M.D., Louisville, K.S.M.A. secretary and general manager, and Daryl P. Harvey, M.D., Glasgow, chairman of K.S.M.A. Committee on School Health. Donald A. Dukelow, M.D., consultant to the Bureau of Health Education, American Medical Association, will also participate.

Ohio Valley Proctologists Meet

Wendell Green, M.D., Toledo, will address the Ohio Valley Proctologic Society meeting in Dayton, Ohio, May 8, it was announced by Henry B. Asman, M.D., Louisville. Kentucky members who are expected to attend the meeting in addition to Dr. Asman are Marvin A. Lucas, M.D., M. H. Pulskamp, M.D., and James E. Ryan, M.D., of Louisville; Rufus C. Alley, M.D., Wilford L. Cooper, M.D., and Orville T. Evans, Lexington.

New KSMA Members Welcomed

Bourbon—I. Zapolsky, Paris.
Carter—L. W. Howerton, Jr., Olive Hill.
Fulton—E. F. Crocker, Fulton.
Hardin—Oris Aaron, Elizabethtown.
Harlan—Glenn Austin, Kenvir.
Henderson—Charles Kissinger, Henderson.
Jefferson—Gwilym R. Jones, Rudolf J. Noer, Paul D. Pedersen, Louisville.
Montgomery—W. H. McKenna, Mt. Sterling.
Pendleton—Edward H. Koster, Falmouth.

The average physician gives seven hours, or 12 per cent of his working hours to charity patients—an equivalent of \$3,000 in medical service a year, according to Medical Economics magazine. A survey showed that seven out of ten doctors do charity work, with a higher ratio in the cities and among high-income physicians.

SUMMARY OF SERVICES PROVIDED BY THE FIELD SECRETARY

(Continued from page 209)

graduate of the University of Missouri. He served in World War II as a captain in the Marines. He brings to his work five years experience in medical organizational work. At the time of his employment by K.S.M.A. he was the executive secretary of the St. Louis, Missouri, Medical Society. Prior to this, he was field secretary for the Michigan State Medical Society. In addition to previous experience in the newspaper business, he served as field director for one of the largest public relations firms in the Midwest. As a qualified public relations man who has worked long with the medical profession, he is competent to interpret to the public as only a layman can the viewpoint of the physician.

At my request, Mr. Miller has summarized for me his conception of the general functions of a field secretary. He lists the following three functions:

1. Information.
2. Service.
3. Counsel.

Information which he supplies as a reporter will do much to strengthen mutually the Association and the county societies through clearer understanding.

Service he can provide as a leg man, doing things for the county society which its busy members do not have the time to do, especially in relation to public service activities. He is a layman and has the limitations which that implies, but there is still much he can do.

As a man trained in medical association work and as a public relations expert, he can often give valuable counsel, based on the experience of others and on his own observations, especially as to questions of detail.

In addition to these things, our association officers feel that his presence in the field will serve as a stimulus to more interest in medical association affairs.

The value of the field secretary to our association is going to depend to a great extent on you and on me. Mr. Miller has the background, the training, and the ability to be of help to us. It is up to us to see that our individual county societies avail themselves of the services which he has to offer. The result, in greater understanding and better teamwork, will benefit both the profession and the public.

Pertinent Paragraphs

The Tennessee Valley Medical Assembly will hold a meeting at the Read House in Chattanooga, Tennessee, on September 28 and 29.

The A.M.A. Board of Trustees has appropriated \$4,000 to help defray costs of preliminary work to be done by the joint committee appointed last September to study and test surgical materials used in the human body. The contribution matches one made by the American Academy of Orthopedic Surgeons. The testing plan first originated with Joseph S. Barr, M.D., Boston, past president of the Orthopedic Academy.

A postgraduate symposium on basic sciences related to anesthesiology has been announced by the University of Pittsburgh School of Medicine, Section on Anesthesiology, in co-operation with the departments of anesthesiology of several Pittsburgh hospitals for June 8 to 12. Registration and particulars may be obtained through the chairman of the Committee on Graduate Medical Education, University of Pittsburgh School of Medicine, 3941 O'Hara Street, Pittsburgh 13.

A bill proposed recently by Senator Kefauver and sent to the Finance Committee, would extend coverage of self-employed under Social Security to physicians, lawyers, dentists, osteopaths, veterinarians, chiropractors, and optometrists, on a voluntary basis at an annual tax rate of 2¼ per cent of the first \$3,600 in earnings, according to the A.M.A. Washington Office.

A significant step for the United Mine Workers Welfare and Retirement Fund's medical care program was the recent signing of a contract for construction of 10 hospitals in West Virginia, Kentucky, and Virginia, it was reported by the Washington A.M.A. office. Outpatient treatment will be provided in all the units, which range from 50 to 200 beds. Construction is expected to start in several months.

A new directory of doctors of medicine and doctors of osteopathy licensed in Kentucky, has been published and distributed to the state licensees by the Kentucky State Board of Health. Additional copies of the directory may be obtained through the State Board, 620 South Third Street, Louisville, at a charge of \$2.00.

A new 350-bed structure for Negro patients at Eastern State Hospital, Lexington, which was completed in March, will be named in honor of Thomas T. Wendell, M.D., Lexington, veteran Negro physician. Dr. Wendell practiced medicine at Lexington for 50 years and retired last spring because of his health after more than 20 years as full-time physician for Negro patients at the hospital.

The appointment of Charles E. Acuff as school health co-ordinator was announced April 6, by Harry K. Dillard, M.D., Division of School Health of the State Department of Health. Mr. Acuff, who came from Lees Junior College in Breathitt County, will work closely with physicians, teachers, local health departments, education board and civic groups to further school health in the state.

Physicians in Illinois recently contributed \$59,570 to the American Medical Education Foundation through the Illinois State Medical Society, according to an A.M.A. Secretary's Letter. This brings the total contributions received by the foundation this year to \$594,000, as reported by its executive secretary, Hiram W. Jones. The 1953 goal is \$2,000,000. Last year's contributions totaled \$886,430.

Federal administrators were empowered to place their own people in top policy-making jobs recently when the President partially rescinded executive orders by President Truman that gave civil service status to many top government jobs. The White House stated "A civil service system is not an end in itself. It is a method for obtaining more efficient administration. Whenever it is permitted to drift to the point where it may hamper rather than assist our top administrators, immediate action should be taken. . . ."

An effective liaison is presently being developed between the Student A.M.A. and its counterpart, the American Law Student Association, which is sponsored by the American Bar Association, whose national headquarters are in Chicago. Moot trials on chapter campuses and at annual conventions are contemplated as well as exchange of films and speakers. The A.M.A. has requested all state and county medical societies to co-operate with these groups when speakers are solicited.

Application for admission to medical schools, continuing a three-year trend, dropped this year some 3,150 from last year and 7,600 less than three years ago, according to The Journal of Medical Education, of the Association of American Colleges. Competition is growing among medical schools for the top students,

and with half the nation's applicants coming from seven states, a serious situation can be created for those states with residency requirements.

"The American Surgeon," official organ of the Southeastern Surgical Congress and the Southwestern Surgical Congress, was first published recently under a new format by the Williams and Wilkins Company and provides for publication of more papers. J. Duffy Hancock, M.D., Louisville, is associate editor. D. P. Hall, M.D., Louisville, is a member of the editorial board. Editor is Thomas G. Orr, M.D., University of Kansas Medical Center, Kansas City, Kansas.

AN AGRICULTURAL ECONOMIST LOOKS AT RURAL HEALTH

(Continued from page 211)

ties at extreme sacrifices of time, money and misdirected efforts."

A part of Mr. Peck's talk touched on the dangers that muddled thinking may introduce to the health picture. He referred to the statement made by the World Health Organization: "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. . . ."

Commenting on this, Mr. Peck said, in part: "Two terms in this definition bother me as to the various meanings they may convey to different people. The first is the word, 'complete.' Many authorities question whether or not even America with all its resources can provide complete health for all the people. . . ."

"At times I am confused about our guaranteed rights and the responsibilities of the government to see that everyone's rights are adequately protected. We once used the term, 'earned security'; now it is guaranteed security that is talked about. Somehow or other it seems our 'rights' should entitle us to over-all effective economic and social protection regardless of our efforts to help ourselves."

Mr. Peck might very well have added, as a matter of sound semantics, that "complete physical, mental, and social well-being" is more aptly a definition of "happiness" than of "health." In their wisdom, the founding fathers recognized that only "the pursuit of happiness" is a right; happiness, itself, is a blessing.

News Items

John Archer, M.D., and his brother, **George P. Archer, M.D.**, recently opened a new 42-bed hospital in Prestonsburg. Dr. John Archer graduated in 1933 from the University of Louisville School of Medicine, and Dr. George Archer graduated from the medical school in 1941.

Robert F. Long, M.D., has moved to Corbin from Temple, Texas, where he practiced medicine at the Scott and White Memorial Hospitals. Dr. Long, who is a radiologist, graduated in 1948 from Tulane University of Louisiana School of Medicine. He had a residency in radiology at Johns Hopkins Hospital.

Vallee W. Blagg, M.D., and **Charles L. Brown, M.D.**, have recently become affiliated with the Veterans Administration Hospital at Louisville. Dr. Blagg, a specialist in internal medicine and a native Ohioan, graduated in 1946 from the University of Louisville School of Medicine, interned at Charleston General Hospital, West Virginia. Dr. Brown, a neuro-surgeon and native of West Virginia, came to Kentucky from Point Pleasant, West Virginia. He is a 1941 graduate of the University of Louisville School of Medicine.

A. A. Richardson, M.D., Williamsburg, will witness a celebration staged by the town in his honor on his birthday, May 7, in gratitude for his many years of medical service to the community. Dr. Richardson was born in 1880, a native of Williamsburg, and began his long practice there shortly after his graduation in 1904 from the old Hospital College of Medicine at Louisville.

Lloyd W. Ravlin, M.D., a native of Illinois, located recently at Stone, Kentucky, for the general practice of medicine. Dr. Ravlin is a graduate of the University of Illinois College of Medicine and interned at Mercy Hospital, Chicago. He formerly practiced at Kaneville, Illinois.

Louis Hamman, Jr., M.D., has located at Lexington for the practice of surgery, having been

with the Veterans Administration Hospital at Wood, Illinois. Dr. Hamman graduated in 1943 from Johns Hopkins University School of Medicine and interned at New York Hospital.

Paul E. Goode, M.D., formerly of Bowling Green, has moved to Hartford to establish an office for the general practice of medicine. The office was purchased from **Fred C. Reynolds, Jr., M.D.**, who left recently for service in the U. S. Air Force. Dr. Goode graduated in 1949 from Tulane University of Louisiana School of Medicine and interned at Charity Hospital, New Orleans.

Robert C. Bateman, M.D., has moved his office from Somerset to Danville for the practice of his specialty in obstetrics and gynecology. Dr. Bateman graduated from Tulane University of Louisiana School of Medicine in 1939 and interned at Good Samaritan Hospital, Lexington.

Gilbert C. Rawlings, Jr., M.D., has moved from Harlan to Louisville and is a resident in ophthalmology and otolaryngology at General Hospital. Dr. Rawlings has done general practice at Harlan and earlier at Miami. He graduated in 1947 from the University of Louisville School of Medicine and interned at St. Joseph Hospital in Phoenix, Arizona.

Herbert W. Collins, M. D., formerly of Lynch, has opened an office for the general practice of medicine at Corbin. Graduating in 1950 from the University of Tennessee College of Medicine, Dr. Collins interned at Ft. Sanders Hospital, Knoxville.

Edward A. Rosé, M.D., formerly of Elizabethtown, returned recently after nine months in Alaska to take over the practice of his uncle, the late **E. A. Rose, M.D.**, at Louisville. Serving in the navy during World War II, Dr. Rose completed his studies begun at the University of Louisville School of Medicine, graduating in 1951. He then spent a year at Gorgas Hospital, Canal Zone, before going to Alaska. The elder Doctor Rose died in December, 1952.

APPLICATION

FOR SPACE IN THE SCIENTIFIC EXHIBIT

1953 Annual Meeting Kentucky State Medical Association

Columbia Auditorium Louisville, Kentucky September 22, 23, 24

Fill Out and Mail to:

EVERETT L. PIRKEY, M. D., *Chairman*
Committee on Scientific Exhibits
Louisville General Hospital,
Louisville 2, Kentucky

1. Title of Exhibit:.....
2. Description or nature of exhibit: (Attach brief description to this blank).
3. Will you require shelf space?.....
4. Give approximate amount of wall space needed. (Included in total space is two side walls of two feet in length).....
5. Name of institution co-operating in the exhibit (if desired).....
6. Name of exhibitor:.....
- (Street & No.)..... (City)

(Deadline for mailing application August 1, 1953)

The Kentucky State Medical Association will provide without cost to the exhibitor the following: Exhibit space, shelves, sign for booth, current, bracket lights.... provided all items are approved in advance by the committee.

Cost of transporting exhibits to the meeting must be borne by the individual exhibitor as well as costs of cards, signs, etc., which are a part of the exhibit.

View boxes, furniture, decorations, etc., may be rented, if desired, by applying directly to Jos. T. Griffin Company, 704 West Main Street, Louisville 2, who supply equipment for the annual K.S.M.A. meeting.

County Society Reports

JOHNSON

The Johnson County Medical Society met at the Hotel Herald, Paintsville, on March 12. The following physician members and their wives were present:

Doctors Lon C. Hall, Paul B. Hall, councilor of the 14th district, Robert A. Hall, James Archer, Charles Preston, and A. D. Slone.

Dentists who attended with their wives were: Doctors G. M. Stafford, J. H. Rapier, and A. F. Williams.

Physician guests of the society were: Doctors Condict Moore, Louisville; John B. Floyd, Jr., and Franklin B. Moosnick, Lexington; and T. E. Walden, Jellico, Tennessee.

Mrs. Mary Grace Garland, chairman of the local Cancer Drive committee, and a number of persons active in the Kentucky Cancer Society program, including four registered nurses, mobile unit personnel, two representatives of the Johnson County Health Department, and others also attended as guests.

After dinner, the meeting was called to order by Dr. Preston, president, and Dr. Paul Hall introduced the guests.

As speakers of the evening, Dr. Floyd gave a short talk on "Cancer of the Breast," Dr. Moosnick spoke on "Treatment of Leukemia," and Dr. Moore discussed "Intra-oral Cancers."

Dr. Moosnick and Dr. Floyd were both assisting in the clinic during the three-day visit of the cancer mobile unit at Paintsville.

The program for the next meeting on April 28, was announced as a discussion on the Blood program of the American Red Cross.

Augustus D. Slone, M. D., Secretary

LETCHER

The Letcher County Medical and Dental Society met on March 31, 1953, in the office of County Health Officer R. Dow Collins, Whitesburg. Seven of the 11 members were present. They were Doctors B. C. Bach, R. Dow Collins, Lundy Adams, E. G. Skaggs, A. B. Carter, Carl Pigman, and Owen Pigman.

After a short business meeting, Dr. Carl Pigman gave a paper and discussion on "The Influence of Drugs on Blood and Bone Marrow." A general discussion by all present followed on the use and experience of new drugs that have been discovered and have come into use within the last few years.

The secretary read a letter from the executive secretary of the Kentucky State Medical Association

reminding members of the April 1 deadline for payment of state dues to remain in good standing, and calling attention to the benefits that would be lost by not remaining a member in good standing.

Owen Pigman, M. D., Secretary

McCRACKEN

The McCracken County Medical Society met at the Ritz Hotel, March 25, 1953 for its monthly dinner meeting. The meeting was called to order by Dr. George H. Widener.

Dr. Widener reported that legal counsel is being used to investigate the issue which may develop concerning each doctor's responsibility to the patient under the planned emergency medical program.

There was a discussion by Dr. Logan Weaver, who reported on the progress of the Emergency Medical Service.

It was moved that the society's mailing list include all licensed physicians in Western Kentucky and the immediate area. Motion carried.

M. W. Fowler, Jr., M.D., Secretary

SCOTT

The Scott County Medical Society met for their regular monthly meeting at the John Graves Ford Memorial Hospital, Georgetown, on April 2, 1953. The following members were present:

Doctors F. W. Wilt, W. S. Allphin, A. F. Smith, and H. V. Johnson.

Guests of the society were Mrs. Simmerman of the Hospital Services, State Department of Health, and Miss Beatrice Daniels, superintendent of the hospital.

The question of incompleting hospital records was brought up for discussion, and the doctors were urged to complete all their case histories for future reference.

H. V. Johnson, M. D., Secretary

UNION

The Union County Medico-Dental Society met on March 17, 1953, at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M.D., president.

The secretary read a communication from the Medical Society of Erie County, Buffalo, New York, enclosing a resolution for consideration by the Union County Society on the Doctor



Childhood constipation deserves treatment which gently restores normal peristaltic movements; drastic elimination cannot permanently correct the condition and may be harmful to the child.

ROLE OF METAMUCIL® IN ESTABLISHING PROPER BOWEL HABITS IN CHILDREN

Metamucil's bland, demulcent bulk is a physiologic way to manage bowel dysfunction in youngsters.

Metamucil does more than merely clear the constipated bowel. When taken with adequate amounts of water, Metamucil's hydrophilic colloid has a proved corrective effect on the child's malfunctioning intestines. Use of Metamucil early in life assures a natural method of elimination and helps guard against formation of the "laxative habit" in later years.

Mixed with fruit juice, milk or the

child's favorite beverage, Metamucil provides a gentle, corrective stimulation to peristalsis. There is never a "rush"—never a weakening diarrhea with Metamucil.

Metamucil is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

SEARLE Research in the Service of Medicine

Draft Law, now under discussion in Washington by various committees for revision. Resolution tabled.

The secretary also read from the A.M.A. Secretary's Letter on the same subject, with details of the proposed revision of the Doctor Draft Law.

The society discussed the recent mild outbreak of infectious hepatitis. Several cases had been reported at Camp Breckinridge among civilians attached to the camp personnel, with a large number of children involved. A. W. Andreasen, M.D., county health director, reported he had made field investigations with military authorities in the schools and surrounding area, and had tested the water at various places.

The physicians reported they had a great number of light hepatitis cases and that there appeared to be a mild epidemic in Union County.

The county health director stressed the importance of reporting all communicable diseases to the health department. Despite such a legal requirement, many cases are not reported, and there are many not seen by a physician. This applies to V. D. cases that are treated and never reported, he said, and he asked that they at least be reported by number if not name.

L. E. Smith, M.D., regional medical director, State Department of Health, was speaker for the evening. He talked on his early days of medical practice and his missionary service in Africa, pointing out the difficulties endured in missionary practice. He stressed the role immunization had played in increasing the life span. The talk was illustrated, and he gave a statistical background.

A. W. Andreasen, M.D., Secretary

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met on March 31, 1953 at Bowling Green. Dr. W. R. McCormack, president, presided. The following items of business were disposed of:

1. Dr. R. O. C. Green gave a report of the committee appointed by the president, classifying the construction of a nurses' home, in conjunction with the local hospital as top priority for housing of medical needs in Warren County. Construction of a tuberculosis hospital was placed second. It was voted to postpone the reply to the fiscal court for another month.

2. It was voted to request more information from the Kentucky State Medical Association

concerning the prospective Public Relations Lecture Series to be given by Mr. John Guy Miller, field secretary, for the benefit of physicians' secretaries.

3. The series of A.M.A. transcribed radio broadcasts scheduled for each Friday at 7:15 p. m. over WLBK was discussed and steps were outlined to obtain publicity for it.

4. Resolutions submitted by the Erie County Medical Society of New York concerning the Doctor Draft Law were approved.

5. Announcement was made of the Sixth District meeting April 28, at Bowling Green and of the District Women's Auxiliary meeting the same evening.

Program for the evening was a telephone seminar on "Office Proctology," originating in Louisville and wired to subscribing societies throughout the state. A discussion followed by Dr. Henry S. Harris and Dr. W. O. Carson.

Dr. Dan Druett, a guest of Dr. J. B. Helm from Sussex, England, was introduced. Twenty-four persons attended the meeting.

Charles M. Francis, M. D., Secretary

THE MANAGEMENT OF CASUALTIES IN KOREA

(Continued from page 203)

who argued in this manner. Her responsibilities she accepted and discharged with dignity and fervor, whatever the assignment. She brought credit and distinction to the corps to which she belonged.

Her presence was a fillip to the morale of all ranks whether she worked among the sick and wounded on a hospital train, on an evacuation plane, in a prisoner of war hospital, or in a surgical tent. Your boy was her boy to whom she administered as he lay with a hole in his brain or with his extremities blown to bits.

Supplies, equipment and other advantages difficult to obtain, through usual channels, often came more easily because of her influence. She could get things done when other means seemed certain to fail. By improvisation, by professional interest, by devotion to duty, by cheerfulness in the face of danger, by being a woman, she made outstanding contributions toward the successful management of casualties under primitive and adverse surroundings. The nursing profession can be justly proud of its accomplishments in the orient.

It had to be good
to get where it is



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

In Memoriam

ROY S. SUMNER, M.D.

Owensboro

1884 - 1953

Dr. Roy S. Sumner died at his home in Owensboro on February 3, 1953. He had been a practicing physician in that city for the last 33 years.

Born in Maxwell, Kentucky, he was graduated from the old Louisville Hospital Medical College in 1908. He took a special course in the eye, ear, nose, and throat in Chicago Hospital Clinic and returned to Owensboro where he practiced his specialty until his death.

Dr. Sumner was a first lieutenant in the medical corps in World War I and was a member of the Medical Board at the Veterans Hospital, Lexington, in World War II.

ALFRED E. GARDNER, M.D.

Wichita, Kansas

1869 - 1953

Dr. Alfred E. Gardner formerly of Morgantown, Kentucky, died at the Veterans Hospital, Wichita, Kansas, on February 16, 1953.

Dr. Gardner was born at Smiths Grove, Kentucky, and graduated from the University of Louisville Medical Department in 1893. Following his graduation he practiced in Morgantown. During World War I he served as a major in the army medical corps, and at the close of the war began practicing surgery in Wichita until his retirement several years before his death.

He was a member of the American College of Surgeons and served as the president of the staff of St. Francis Hospital.

FRIEDA K. BERRESHEIM, M.D.

Louisville

1895 - 1953

Dr. Frieda K. Berresheim died at St. Anthony Hospital, Louisville, on March 21, 1953. She had been ill since December, 1950.

Dr. Berresheim was born in Vienna, Austria, and was graduated from the Conservatory of Music and later from the Medical Department of the University of Vienna. She married Dr. Anthony J. Berresheim of Louisville while he was taking a postgraduate course at the University and accompanied him to Kentucky.

Dr. Berresheim was a specialist in obstetrics and gynecology and was a member of the Board of Obstetrics and Gynecology.

PAUL KING McKENNA, M.D.

Mt. Sterling

1882 - 1953

Dr. Paul King McKenna died February 20, 1953 at his home in Mt. Sterling where he was a practicing physician for nearly half a century.

He was born in Caledonia, Minnesota, and was graduated from the Kentucky School of Medicine in 1907. Shortly afterwards he moved to Mt. Sterling where he practiced until his death.

Dr. McKenna was county health officer for many years and was acting in that capacity at the time of his death. He was very active in civil affairs.

THE RATIONALE OF PROSTATECTOMY

(Continued from page 205)

Summary

To summarize this material that has been presented the salient indications for the specific method of prostatectomy may be set forth as:

SUPRAPUBIC

Large bladder stones associated with prostatic enlargement

PERINEAL

Prostatic biopsy in cancer detection followed by radical prostatectomy

Mid-line lower abdominal hernia where the retropubic approach is mechanically impossible

RETROPUBIC

Large adenomata of the prostate

Severe symptoms from prostatic calculi

Localized cancer of the prostate with radical removal of prostate and seminal vesicles

TRANSURETHRAL

Small or medium prostatic adenomata

Removal of fibrous contractures and muscular hypertrophies of bladder neck

Relief of urinary retention in inoperable cancer of prostate

Preservation of sexual potency

The rational approach to specific methods of prostatectomy is discussed. The indications of prostatectomy are presented without reference to operative technique.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

JUNE, 1953

NO. 6

Observations and Experiences with Isonicotinic Acid Hydrazide (INH)

J. FRANK W. STEWART, M. D.*

Waverly Hills

Early in 1952 considerable optimism was broadcast through radio, TV, and the press concerning the initial findings of the effects of derivatives of isonicotinic acid in the treatment of pulmonary tuberculosis. The "new miracle drug" gave visions of future therapy which might result in the complete eradication of the terrible white plague which has ravished the people of all lands through the ages. Our visions have, however, been somewhat shattered and seem more like a dream which has become only partially true.

The following series of cases and experiences observed over a period of seven months closely correlates the findings of experimentation in the Veterans, Army, Navy and other hospitals. We do not find, at least to date, the results to be as dramatic as those observed in early reports.

Our cases have been treated entirely with the hydrazine derivative of isonicotinic acid. Dosage: 4 mg./kg./day in three divided doses. No change in dosage was made with change in patient's weight.

The 91 cases reported here have been broken down into two major groups. The first group of 31 patients will be reported more in detail than the second group since a closer clinical and laboratory record was kept on this group. The second group consisted of 60 cases and will be reported later in this paper.

Group I

Age: 16 yrs. through 58 yrs. (average 39 yrs.)

*Assistant Medical Director Waverly Hills Tuberculosis Sanatorium.

Summarized before the Louisville Association of Internists, January 29, 1953.

This group was pretty much the culls of the hospital, or as one might say, the "panic cases." All were far advanced with either a B, C, or D clinical classification. Roentgenograms revealed predominantly bilateral, progressive, caseous, cavitary lesions. Observation and treatment of these patients in the hospital before present therapy ranged from 1 month to 5 years; average 18 months. All sputa were consistently positive on smear, with an average Gaffky count of V. All patients were febrile for the past three weeks or more. Temperature ranged from 99° to 103°. All patients, except one, were either losing weight or were not gaining as recorded for the past 10 weeks.

All had received one or more courses of Dihydrostreptomycin and PAS of various regimens with the exception of one case that received only PAS. We were unable to get bacteriological resistance tests done; however, from the clinical and x-ray standpoint it was thought that at least a significant percentage were either resistant initially or developed resistance after prolonged therapy.

In 23 patients some form of collapse therapy or resection had been performed. All current procedures were continued throughout the investigation. Extrapulmonary complications: six laryngitis without ulceration; one peritonitis; one rectal fistula; one empyema; one osteitis, left knee, with fistula.

Our staff had considered the prognosis of the group as follows: one terminal, thirteen hopeless, and seventeen unfavorable. It was not conceivable that any added mechanical, antibiotic or chemotherapeutic regimen would turn the tide

of the downhill progression of the disease.

Procedure

Before the institution of INH therapy all previous medications were discontinued save anti-tussives p. r. n. No changes were made in the patients' activities or diet. Clinical, physical, laboratory, and x-ray base line studies were done on all patients. Roentgenograms were repeated every month thereafter. Clinical and toxicological evaluations were made weekly for the first several weeks at the patient's bedside by the ward doctor and the writer. Later it was done every two weeks by the writer. Mosenthal's were done at the onset of treatment and as indicated thereafter. All other laboratory procedures (sputum, urinalysis, complete blood count, hemoglobin, sedimentation rate, cephalin flocculation, thymol turbidity, and serum protein) were done weekly at first, later every other week, and finally, because of the few disturbing findings, every month. We are now doing only hemoglobin and urinalysis every month routinely. Other tests are done as indicated.

Results

As can be seen from Chart 1, ten patients currently have been dropped from the original series of thirty-one cases as follows: one transferred to Louisville General Hospital Psychiatric Ward at the end of the first month; three had died at the end of the third month; two more had died; two were discontinued because they were considered to be terminating; and two were A.W.O.L. at the end of six to seven months. These will be discussed in more detail later.

In evaluating the over-all results as shown in Chart I, one must not lose sight of the fact that the end result as recorded under three months and six to seven months is more apparent than real. The five who died and the two who were discontinued due to a terminal state no longer give weight to the severe toxic symptoms as listed under ++ and ++++. However, under "appetite" and "energy and sense of well-being" there is a definite shift from the 0 and ++ column to the ++++ column which was marked at the end of two weeks.

CHART I

CLINICAL STATUS OF PATIENTS BEFORE AND AFTER ONSET OF THERAPY WITH INH

	3 Wks. Before Rx			End 2 Wks.			End 1 Month			End 3 Months			End 6 to 7 Mos.		
	No.	Pts.		No.	Pts.		No.	Pts.		No.	Pts.		No.	Pts.	
	0	++	+++	0	++	+++	0	++	+++	0	++	+++	0	++	+++
Appetite	14	11	6	1	10	20	0	8	22	0	4	23	1	2	18
Energy & sense of well-being	7	63	1	3	14	14	0	13	17	0	8	19	0	5	16
Lethargy	19	7	5	20	9	2	19	9	2	22	5	0	20	1	0
Chest pain	18	12	1	24	7	0	25	5	0	23	3	1	21	0	0
Insomnia	19	8	4	20	8	3	21	0	3	22	2	3	19	2	0
Night sweats	20	9	2	22	5	4	28	2	0	27	0	0	21	0	0
Dyspnea	11	17	3	11	18	2	19	17	3	11	16	0	9	12	0
Cyanosis	23	7	1	22	5	4	24	5	1	24	3	0	20	1	0
Cough	0	14	17	0	21	10	0	24	6	1	22	4	0	18	3
No. Patients	31			31			30			27			21		

NOTE: At each clinical evaluation of patients the score was recorded as 0, +, ++, +++, or ++++. In this chart, for simplicity, + and ++ have been combined and recorded as ++; +++ and ++++ combined and recorded as ++++.

- 0 - No
- ++ - Fair or moderate
- ++++ - Good or extreme

CHART II TOXICITY AND SIDE EFFECTS FOLLOWING THERAPY WITH INH

	3 Wks. Before Rx No. Pts.			End 2 Wks. No. Pts.			End 1 Month No. Pts.			End 3 Months No. Pts.			End 6 to 7 Mos. No. Pts.		
	0	+	++	0	+	++	0	+	++	0	+	++	0	+	++
Dizziness	26	2	3	24	7	0	26	4	0	24	3	0	20	1	0
Constipation	13	12	6	14	14	3	19	10	1	19	6	2	17	3	1
Twitching of extremities	25	5	1	24	7	0	25	5	0	26	1	0	19	2	0
Insomnia	19	8	4	20	8	3	21	6	3	22	2	3	19	2	0
Drowsiness	22	6	3	21	9	1	22	7	1	23	4	0	21	0	0
Headache	27	1	3	27	3	1	26	3	1	25	2	0	19	2	0
Mydriasis	19	9	3	18	11	2	20	8	2	20	6	1	15	6	0
Tinnitus	26	5	0	27	4	0	28	2	0	24	3	0	20	1	0
Hyper-reflexia	0	29	2	0	27	4	0	24	6	0	22	5	0	14	7
Delayed stream	29	1	1	30	1	0	29	1	0	26	1	0	20	1	0
Mouth dryness	17	7	7	21	6	4	20	8	2	23	4	0	20	1	0
Dyspnea	11	17	3	11	18	2	10	17	3	11	16	0	9	12	0
No. Patients	31			31			30			27			21		

NOTE: At each evaluation of patients the score was recorded as 0, +, ++, +++ or +++. In this chart for simplicity + and ++ have been combined and recorded as ++; +++ and ++++ combined and recorded as +++. (++ represents normal under Hyper-reflexia.)

0 - No
+ - Moderate
++ - Extreme

The same observation is noted in Chart II. There was, however, an apparent decrease in constipation, an increase of deep reflexes, and decrease in dyspnea. The decreased constipation is not consistent with other reports.

The chart below shows a high percentage of patients shifting to a lower temperature column after treatment, but it does

not show the time required for the reduction in temperature. The time required for the maximum reduction in temperature ranged from one to sixteen weeks, with an average of two weeks. "Current temperature" includes the average last temperatures of the patients who have been discontinued.

TEMPERATURE

Average Temperatures						
No. Pts. Before Rx	98-99	99-100	100-101	101-102	102-103	103
	2	6	11	6	4	2
No. Pts. Current	2	17	5	2	2	3

WEIGHTS

<u>10 Wks.</u> <u>Period</u> <u>Before</u> <u>Rx</u>	Loss 1 - 10 lbs.	<u>No. Pts.</u> 21	
	" 10 - 22 lbs.	2	
	No change	7	
	Gain 1 - 2 lbs.	1	TOTAL 31 PTS.
<u>1 Mo.</u> <u>After</u> <u>Rx</u>	Loss 1 - 6 lbs.	6	
	No change	3	
	Gain 1 - 6 lbs.	21	TOTAL 30 PTS.
<u>6 to 7</u> <u>Months</u> <u>After</u> <u>Rx</u>	Loss	0	
	No change	0	
	Gain 1 - 10 lbs.	10	
	" 10 - 20 lbs.	5	
	" 20 - 30 lbs.	5	
	" 30 - 35 lbs.	1	TOTAL 21 PTS.

Weight gain was gradual and constant in most patients, starting at the end of 1st to 2nd wk. of RX and continues even up to the 7 mos. period. Average weight gain currently is 14 lbs.

There were no significant changes in blood pressure.

Sputum

Sputum volume at the end of 6 to 7 mos. Rx: 62% of the patients had a decrease of 15% to 60%; 29% had an increase of 10% to 400%; 9% had no change in volume.

There was no remarkable change in the character of the sputum other than a few changed from mucopurulent to mucoid. Some who had shown a tendency to streak previously continued to do so occasionally. Two had episodes of a week to ten days of frank hemoptysis.

All sputa were consistently positive on smear at the onset of therapy. Currently 19% of the patients are showing negative specimens on smear. One patient has had six straight negatives, one five, one four, one two, and two patients one each. 52% of the patients are showing a tendency toward a lower average Gaffky count; 29% have the same or higher average Gaffky count.

Urine

Tabulation of the abnormal findings after treatment as compared with before treatment was about the same.

Mosenthal tests did not show any significant changes.

Blood Sedimentation Rates

End of 2 Wks.	End of 6 to 7 Mos.
48% increased	28% increased
52% decreased	62% decreased (3 normal)
None normal	10% no change

Complete blood counts failed to reveal any significant changes.

Hemoglobin Observations

End of 2 Wks.

36% decrease of 0.5 to 2.0 gms.
19% increase of 0.5 to 2.0 gms.
45% no change

End of 6 to 7 Mos.

48% decrease of 0.5 to 1.0 gm.
52% increase of 0.5 to 2.0 gms.

Cephalin Flocculation

Before Rx

71% trace to + (normal)
26% ++ to +++
3% ++++

End of 6 to 7 Mos.

66% trace to + (normal)
34% ++ to +++

Cephalin Flocculation and Serum Protein

We cannot account for the abnormally large number of patients who showed an increased cephalin flocculation test. There were not significant changes, however, after prolonged treatment.

Serum A/G Ratios: 90% had A/G ratio reversals at onset of therapy. 96% had A/G ratio reversals at end of 3 to 7 mos.; how-

ever, only one had below normal total protein before and after therapy. The abnormally high percentage of reversals cannot be explained here. There was no change which could be contributed to INH therapy since the percentage was about the same before treatment as after.

No patients showed any clinical signs of liver damage.

Case Reports

Below is an explanation of the cases dropped from the series:

Case No. 1 (M. L.): 30-year-old C/F; Admission 5-15-50; Diagnosis: Pulmonary Tuberculosis, F.A.C.; predominantly bilateral exudative infiltration. Patient was streaking and had all the classical symptoms of extreme toxicity. Prognosis: Hopeless. The ward doctor gave the history of the patient's being emotionally unstable, showing intermittent episodes of excitement with intervening lucid and cooperative intervals. Laboratory findings did not contraindicate INH therapy. On April 11 patient was started on 100 mg. INH in three divided doses per day. On April 18, in the absence of any untoward side effects, dosage was increased to 175 mg. per day. Two weeks later patient had developed a good appetite, and energy and sense of well-being was improved. Weight gain 2 lbs. No toxic side effects noted. Reflexes normal. On April 30 patient became very talkative, screaming, uncooperative, and threatening other patients. INH was discontinued. On May 2 patient became uncontrollable and was completely disoriented. Transferred to L.G.H. Psychopathic Department. Later transferred to Central State Hospital. We were unable to say whether INH aggravated an already existing psychosis.

Case No. 2 (T. C.): 33-year-old W/F; Readmission 7-1-47; Diagnosis Pulmonary Tuberculosis, F.A.B., predominantly fibrotic infiltration with cavitation, right apex.

Left thoracoplasty 5-3-48. D'strept. gms. 90; PAS for 5 months in 1949-50. Pneumoperitoneum 11-30-50 to 5-2-51.

Prognosis - Hopeless.

Laboratory findings before INH started: Urine-Alb. ++; occ. c. gran. cast: 8-10 WBC/HPF; Mosenthal - 8 AM to 8 PM 410 cc. Sp. gr. 1.018, 8 PM to 8 AM 730 cc. Sp. gr. 1.005; Ceph. flocc. trace; thymol turb. 1.00; C.B.C. normal. 4-19-52 INH started.

4-26-52 Pt. showing gain of appetite and sense of well-being.

5-9-52 Pt. complained of fullness of abdomen. Abdomen distended. Ankles ++ pitting edema.

5-10-52 Alb. ++ and occ. c. gran. cast; 15 - 20 WBC/HPF. Total protein 3.91, with A/G ratio of .71/3.14 N.P.N. 28 mg. %. Cephalin flocculation and thymol turbidity normal. Amigen and whole blood given. INH discontinued from the standpoint of possible kidney damage to an already inadequate renal function.

5-21-52 Patient had developed generalized anasarca in spite of whole blood, amigen, and albumin fraction of plasma administration. 200 cc. of milky white fluid aspirated from peritoneal cavity; negative for tubercle bacilli.

5-26-52 N.P.N. 44 mg. %. A/G ratio 1.13/3.26. Alb. ++++; occ. c. gran. cast. Cephalin flocculation and thymol turbidity normal.

6-2-52 Consultation. Differential: (1) Amyloidosis (2) Chronic glomerulonephritis with nephrotic syndrome (3) Toxic nephrosis (4) Chronic nephrosis.

6-3-52 Congo Red Test: 26% of the dye disappeared from blood stream in 1 hr. Culture of catheterized urine specimen showed no growth for secondary organisms or tubercle bacilli.

6-20-52 Pt. had rapidly become more edematous, dyspneic and weak. Expired. Unable to get postmortem examination.

Case No. 3 (L. H.): 24-year-old W/F; Admitted 11-10-49; Diagnosis Pulmonary Tuberculosis, F.A.D., predominantly caseous cavitation, right upper, with scattered exudative infiltration in left lung, ++ pitting edema of feet and chronic constipation. She carried pneumoperitoneum from November 1951 until recently when she developed tuberculous peritonitis with fluid.

Urine negative; sputum Gaffky V; R.B. C. 3, 930,000, Hgb. 10.5 gm., Diff. normal; A/G ratio 1.94/3.11; ceph. flocc. +++.

Patient was considered terminal by the staff. INH was withheld for one week because of the fear of liver damage. Recheck of liver function tests in one week showed A/G ratio 1.72/3.39, cephalin flocculation +++, thymol turbidity 1.98.

On 4-19-52 as a last hope patient was started on INH. After 2 weeks she began to gain strength and to show improved

appetite and sense of well-being. Fluid in abdomen began to absorb and pedal edema began to disappear. Laboratory tests have remained about the same with the exception of increased Hgb. to 12.5 gm. and A/G ratio to 3.08/3.76. In a matter of a few weeks the peritonitis had cleared, pedal edema disappeared and the patient was gaining weight.

On 9-13-52 there were acute generalized abdominal pain, nausea, and vomiting. Transferred to L.G.H. Surgical Ward, with possible diagnosis of intestinal obstruction possibly due to adhesions following peritonitis. Obstruction apparently cleared, and the patient was returned to the Sanatorium; however, there was a persistent, firm, tender mass in the R.L.Q. Bowels continued to move with enemas and patient was taking food and improving again. Sputum dropped from Gaffky V to Gaffky II average. X-ray showed slight clearing during the first month, but no change thereafter.

On 10-8-52 there was a recurrence of abdominal pain. Due to the fact that a definite diagnosis had not been made, INH was discontinued on the basis that it might be a side effect of the drug causing extreme obstipation.

On 10-31-52 a barium enema showed partial obstruction of the bowel at the junction of the descending and sigmoid colon. Patient was again transferred to L.G.H. Surgery for observation.

On 11-14-52 patient returned from L. G. H. No surgery done. Diagnosis, Disturbance of bowel motility, probably on basis of B₁ deficiency. INH as a cause has not been ruled out.

Cases No. 4, 5, 6, and 7 died after 4 weeks, 5 weeks, 6 weeks, and 4 months Rx respectively. INH was not considered a factor in cause of death.

Case No. 8 was discontinued due to terminal state after 4 months Rx. INH not considered a cause of the down-hill progression.

Cases No. 9 and 10 A.W.O.L. after 3 months and 4 months Rx respectively. Both patients showed improvement while on INH.

Results of Extrapulmonary Complications

LARYNGITIS: Six patients were diagnosed as having non-ulcerative, tbc. laryngitis either by direct or indirect laryngoscopy. All had hoarseness and two had pain. All patients showed definite im-

provement of hoarseness within 3 to 6 weeks. The two who had pain showed almost complete disappearance of same within 3 to 6 weeks. In one the hoarseness and pain recurred after 6 to 8 weeks, and she has since died. In only one have the symptoms disappeared completely.

PERITONITIS: The peritonitis discussed under Case No. 3 was producing a large amount of fluid which contained acid-fast bacilli and required frequent aspirations. In a matter of 6 to 8 weeks all fluid had disappeared and the peritonitis had apparently healed.

RECTAL FISTULA: The one case observed showed marked healing of the muco-cutaneous ulceration and reduced purulent drainage after 4 months Rx.

EMPHYEMA: One case. No improvement after 7 months INH.

OSTEITIS: One patient had tuberculous osteitis of the left knee with a purulent exudate from a 2 to 3 mm. fistula. He had been wearing a cast for several months. After three weeks of INH therapy the drainage had changed to serous in character. After two months the fistula had healed completely; however, there has been no x-ray evidence of new bone being laid down in the lesion. Patient to undergo surgery.

Three patients had cavernostomies which showed a very rapid rate of healing. One had a wide-open exit in the axilla which exuded a very foul, purulent discharge, soaking a dressing 6" x 6" x 1" every 24 hours. In two months the drainage had stopped completely and the fistula healed. In the second patient there was a wide-open, upper, anterior cavernostomy with purulent drainage soaking a dressing 4" x 4" x 1½" every 24 hours. After three months the drainage had stopped completely, and the very small 2mm. fistula is dry and apparently epithelialized. In the third patient who had a wide-open, upper, anterior cavernostomy with purulent drainage soaking a 4" x 4" x 1" dressing every 24 hours, there had been about one-half reduction in size and quantity of drainage after 6 months of INH therapy.

One patient, a 44-year-old W/F, has recently undergone a two-stage thoracoplasty following INH therapy. She had an almost completely destroyed lung on the left and a moderate amount of fibrotic infiltration in the right apex. The x-rays did not show any appreciable changes following six months of INH therapy, but

the patient's general condition improved to a point where surgery could be ventured. (Note: Opiates are thought by some to be contraindicated in patients receiving INH; therefore INH was discontinued for the few postoperative days when the patient required opiates. Two patients have been reported as having severe reactions while undergoing anesthesia (cyclopropane in one and intravenous barbiturate in the other); Journal, A.M.A., November 8, 1952, p. 977.)

X-Ray and Clinical Evaluation

To the clinician the x-ray change is probably the most important factor to be considered in the final evaluation of results. There were no really dramatic x-ray changes in any of the patients of the series. In a few the cavities became somewhat smaller. In a larger percentage there was a definite clearing of the exudative component. Interpretation and comparison of roentgenograms were made by our staff.

The chart below gives the comparison of the x-ray and the total clinical evaluation with that of the preceding month in per cent of total numbers of patients.

The final over-all x-ray results are found by comparing the last x-ray of each patient with the pre-therapy x-ray. Results are as follows:

Worse	No Change	Slight Improvement	Moderate Improvement
13%	26%	38%	20%

One patient (3%) transferred to Psycho before x-ray.

Group II (60 Cases)

This group differs from Group I in that only a small per cent are hopeless cases. These are not to be discussed as a group excepting for a few generalized statements and figures because they are not comparable cases. It would be impractical to attempt to discuss every case individually; therefore only a few of the more interesting cases will be discussed in detail.

It must be borne in mind that this is only a preliminary evaluation of results in this group since a few of the cases have been on INH therapy only a relatively short time. The range of therapy currently is from 3 weeks to 5 months, one case 7 months. In several of the cases INH is being given primarily for extrapulmonary complications rather than for the pulmonary condition.

All patients, except one, had received rather extensive courses of D'strept. and PAS in various regimens. The percentage of cases showing organisms resistant to streptomycin and PAS is not known.

We are observing the effects of INH in combination with streptomycin and PAS in the following regimens: 3 patients, INH

X-RAY AND CLINICAL EVALUATION

Period of Treatment	Pts. Discontinued from Series	Worse		No Change		Improved	
		Clinically	X-ray	Clinically	X-ray	Clinically	X-ray
End of 1 month	3%	13%	13%	16%	45%	68%	39%
End of 2 months	13%	7%	3%	19%	52%	61%	32%
End of 3 months	13%	19%	16%	13%	39%	55%	32%
End of 4 months	13%	23%	23%	29%	51%	35%	13%
End of 5 months	23%	13%	10%	16%	51%	48%	16%
End of 6-7 Mos.	32%	3%	7%	20%	48%	45%	13%

and PAS daily with streptomycin every other day; 13 patients, INH daily with streptomycin every other day. To date we have not observed any synergistic effect of the combinations; however, this is too small a group and too short a period of administration for any definite conclusion. It is hoped that some combination will prove to add to the therapeutic effect of INH and also delay the development of resistant organisms.

Ages of group: 21 years to 74 years (average 41 years)

Admissions: 1947 through 1952.

Stage: 50 F.A., 10 M. A.; clinically—27 "A", 31 "B", 2 "C".

Sputum (before INH therapy): 11 Negative, 49 Positive (Gaffky II to VII).

Complications

Tuberculous: 3 empyema, 2 miliary, 1 enteritis, 2 endobronchial, 1 Pott's disease, 1 adenitis, 1 meningitis, 1 peritonitis, 1 nephritis, 1 laryngitis.

Non-tuberculous: 3 diabetes, 1 lung abscess, 1 mentally deficient with episodes of hysteria.

Collapse or Surgical Procedures, Current: 12 pneumoperitoneums, 5 pneumothoraces, 1 extrapleural pneumothorax, 4 pneumonectomies, 3 lobectomies, 3 thoracoplasties, 1 cavernostomy, 1 phrenemphraxis, 1 open-drainage empyema.

Results

TEMPERATURE: It will be observed from the following chart below that there is a greater per cent of afebrile patients be-

WEIGHTS

	No. Pts.	No. Pts.
Losing Weight	32	4
No Change in Weight	13	2
Gaining Weight	12	48
Not Weighed (Bed)	3	6

fore Rx than was seen in Group I. There is also a greater per cent responding to Rx.

Weight gain per patient ranged from 2 lbs. to 32 lbs.

Sputum

Before Rx

23% Negative on smear consistently.

77% Positive on smear cons.

After Rx

42% Negative on smear (1 to 10 spec. each)

58% Positive on smear cons.

X-Ray

Only 33 patients out of this group have been on INH long enough to receive a 2 to 3 months x-ray. The results are as follows:

Worse	No Change	Improved
18%	24%	58%

Clinically 82% have improved.

Case Summaries

The following case summaries represent a few of the unusual observations of the series:

Case No. 1 (G. J.): C, M age 27 yrs.; Admitted November 1951; Diagnosis Pulmonary Tuberculosis, M.A.B.; sputum Gaffky III. Biopsy of inguinal lymph gland at L.G.H. before adm. to San. was diagnosed as tbc. lymphadenitis. Patient still had draining fistula from biopsy. Other inguinal and cervical glands were enlarged. D'strept. gm. 1 daily for 30 days and PAS daily for 5 months from November 1951 to April 1952. Fistula healed and the other glands subsided. X-ray of chest showed clearing. Patient was asymptomatic and was gaining weight until about the first of October when his temperature spiked up to 102.6. Cervical glands rapidly enlarging. One gland in left submaxillary region was fluctuant. On 10-8-52 INH, 200 mg. daily, was started.

Average Temperatures

	98-99	99-100	100-101	101-102	102-103	103
No. Pts. Before Rx	19	20	11	5	3	2
No. Pts. Current	36	15	7	1	1	

The fluctuant gland opened 4 to 5 days after onset of Rx. Within 2 weeks temperature had dropped to 99. The glands have gradually subsided and the fistula has healed completely after 5 weeks therapy.

Case No. 2 (V. G.): 49-year-old C/M; Admission Feb. 1952; Diagnosis Tuberculous pleurisy with effusion; fluid Gaffky II. D'strept. gm. 1 day with PAS daily for 30 days. Fluid absorbed and patient became asymptomatic until July 28 when temperature went up to 103.8. Patient anorexic and losing weight rapidly, having drenching sweats, pain in chest, and insomnia. X-ray revealed a very fine miliary infiltration throughout both lungs. July 30 INH, mg. 300 daily, started. Patient soon began to feel better and gained appetite. Within 1 month temperature had come down to 98.6 and patient had gained 10 lbs. Serial x-rays have shown remarkable clearing each month.

The second case of miliary tuberculosis is too early for evaluation.

Case No. 3 (I. L.): 54-year-old W/M; Admitted 7-1-52. Diagnosis Pulmonary Tuberculosis, F.A.B., predominantly bilateral exudative infiltration. Sputum Gaffky II. D'strept. gm. I every other day with PAS daily until August 30. Patient's general condition improved and he was gaining weight. X-ray showing some clearing. On September 6 patient became disoriented and later semicomatose. Neurological, otherwise not remarkable.

Urine, Albumen+, 3-4 RBC and occ. c. granular cast/HPF. Blood, RBC 4,280,000; WBC 8,650; Hgb. 11.5; Differential P. 83%, L. 16%, E. 1%. Kahn negative. Blood sugar 80 mg. %. Spinal fluid, Pandy's test positive, cell count 44, sugar 25 mg. %, Cl. 672, total protein 82.

September 6 D'strept. gm. I with PAS gm. XII and INH mg. 150/day until November 13 when D'strept. and PAS were discontinued. Patient continues on INH.

Notes taken from the progress sheet are as follows: September 7, Patient in coma; 10th, Patient more alert, responds to sound; 13th, Patient taking fluids per oral; 20th, Responding to conversation but mentally slow. November 26, Patient has gradually improved, but his mental faculties are very slow and unsure. He is able to walk 8 to 10 steps to the commode with help. On 27th the spinal fluid Pandy's test positive, cell count 14, sugar 36 mg. %, Cl. 700 mg. total protein 68 mg. Sputum

negative. X-ray shows marked clearing bilaterally.

Diagnosis: tuberculous meningitis based chiefly on the low spinal sugar. This case is unusual in that it developed following a 2 mo. course of D'strept. and PAS.

Case No. 4 (W. S.): 27-year-old W/F; Admitted June 1950. Diagnosis Pulmonary Tuberculosis, F.A., with bilateral cavitation. History of nervousness and crying spells which were particularly disturbing to patient around time of menses. She had been treated for same by family physician for most of her adult life. On 7-9-52 patient was put on INH, mg. 150/day. In 1 week patient complained of increased nervousness. At the end of 4 weeks patient had progressed to a state of extreme hysteria, showing fine tremors of hands and crying almost constantly. INH was discontinued and patient was referred to L.G.H. Psychiatric Clinic for diagnosis and Rx. Diagnosis: Mentally deficient with hysteria. Impression: INH may have exaggerated an already existing psychosis.

3 Cases with Tuberculous Empyema; 2 have shown no improvement. One, a diabetic who has open drainage empyema and has had thoracoplasty for closure of pleural space, has shown marked improvement. There is much less drainage, and the patient's general condition is much better.

One case of tuberculous peritonitis was completely free of clinical and physical findings after two weeks of streptomycin and INH therapy. Patient has shown a marked general improvement. X-ray is clearing.

One case of Pott's disease has shown no indication of healing of the bone lesion after 6 months of streptomycin gm. I bi-weekly and 3 months of INH mg. 150/day; however, patient's clinical symptoms of pain and discomfort of spine have improved. General condition improving and x-ray of lungs showing slight clearing bilaterally.

Comment

The relatively poor results in Group I must not lead one to underestimate the actual value of the drug. It should be remembered that all these patients were far advanced, bilateral, toxic cases who had failed to respond to other procedures such as long term hospitalization, collapse procedures, streptomycin and PAS. Therefore, any definite improvement, clinically

or on X-ray, would indicate an added foe to the tubercle bacilli or its products, or both.

The most dramatic observations here were the rapid gain of appetite, energy and sense of well-being, and weight in virtually all patients.

INH is relatively non-toxic at the dosage level employed here. The two cases that were discontinued due to psychoses and the case discontinued due to extreme obstipation may have been due to central nervous system stimulation. One patient died due to kidney failure which may

have been partially due to toxicity of the drug.

We are convinced from the results here that INH is definitely another very strong weapon in the fight against tuberculosis. Much is yet to be learned as to proper dosage, combination with other drugs, avoidance of development of resistant organisms.

Note—Since the writing of this article it has been shown that INH should be used in combination with other drugs, if possible to avoid early development of resistant organism and perhaps enhance its effect.

The author wishes to express his gratitude to Dr. A. B. Mullen, Medical Director, and staff for their cooperation.

The Rationale of Good Control in Diabetes Mellitus

ARTHUR R. COLWELL, M. D.*

Chicago

In spite of increasing indications that haphazard treatment is harmful to diabetic patients there are still many who accept it with complacency (1). The reasons for such a tolerant attitude are easy to understand, and it may be profitable to define some of them.

Reasons For Tolerant Attitude

First, insulin keeps most diabetic patients alive and feeling well even though some glycosuria and hyperglycemia persist. Symptoms are often absent or slight, weight is maintained, acidosis is easily avoided, as a rule, and patients feel better than they do without any control at all. Usually they seem to tolerate extra food better than they do without insulin. Compared with their behavior before any insulin was available, and contrasted with the clinical picture before the diabetes has been discovered or treated, the regular use of insulin *seems* to solve most of the immediate problems of the diabetic. Neither patient nor physician bothers to ask himself whether all possible measures have been taken or whether there is any harm in condoning chemically abnormal behavior.

Second, a liberal diet, with insulin enough to control symptoms, is an easier method of treatment than one which demands a chemical balance between food and insulin. It requires little knowledge or

determination to take insulin regularly, eat as desired and ignore blood and urine sugar tests. Usually such freedom of action is what the patient wants. The physician who supplies it to him, therefore, meets with favor for prescribing an easy, convenient method.

Next, when some degree of hyperglycemia is tolerated more or less continuously, insulin reactions naturally are infrequent or absent altogether.

Further, the fact that there are some diabetic patients who are virtually impossible to keep sugar-free without frequent and severe insulin reactions (2) makes it necessary, in defining criteria for proper treatment, to discriminate between these severe, labile or "brittle" cases and those with milder forms of the disease. Glycosuria which is unavoidable in severe diabetics is easy to accept in others who could be controlled better with reasonable care.

Finally, diabetic complications do make their appearance even in patients who have been controlled very well. Indeed, some vascular complications antedate the appearance of diabetes completely. They even appear in people who never will be diabetic, of course, which provides food for thought.

Results of Inferior Treatment

These facts, and perhaps others not so apparent, are some of the reasons why proponents of lax control of diabetes are perfectly sincere in their belief that stricter, less convenient methods of treatment are unnecessary. Those who have taught this doctrine have encouraged many un-

Read before the Annual Meeting of the Kentucky State Medical Association, Louisville, October 7-9 1952.

*From the Department of Medicine, Northwestern University Medical School, Chicago.

Irving S. Cutter Professor and Chairman of the Department of Medicine, Northwestern University Medical School, Chicago.

critical people to accept inferior treatment and its hazards quite complacently. Now that evidence is accumulating that this is poor medical policy less is heard from the preachers of a free and easy gospel, but the results of their teaching are still prevalent, partly through carelessness and partly due to misinformation. It is my purpose to call attention to the fallacies of the arguments in favor of low standards of treatment, the dangers inherent in acceptance of that policy, the philosophical and factual evidence in support of more meticulous care, and criteria for treatment which are generally considered to be acceptable. The policies to be described are those which are in common use by a vast majority of experts in the treatment of diabetes in this country. Ricketts has given a complete and judicial review of the evidence available in 1947 (3).

Islet Function

In the normal animal and human there is good reason to believe that an increase in blood sugar is the trigger mechanism which results in insulin production from islet cells. This is the cause of the secondary wave of hypoglycemia which normally follows an initial elevation of blood sugar after ingestion of glucose, during a glucose tolerance test, for example. It is the basis for the so-called Staub-Traugott mechanism (4), in which repeated doses of glucose evoke successively less hyperglycemia in response. More directly, perfusion of a small amount of glucose through the pancreas by injection into one of its arteries results in reduction of the blood sugar in a wave exactly comparable to that caused by a dose of insulin. This is the Grafe-Meythaler experiment (5). Higher than normal pancreatic sugar levels, therefore, appear to cause physiological secretion of insulin. It may be a defect in this simple reflex which is the inherent cause of the common, idiopathic form of human diabetes mellitus.

In the diabetic patient this capacity to produce insulin with the demand of hyperglycemia is more or less deficient, according to the severity of the diabetic process existing. When it is completely absent, as after pancreatectomy in the dog, for example, there is no insulinogenic response to hyperglycemia, whatsoever, the subject is completely dependent upon injected insulin, and little or no residue of capacity for automatic control of sugar levels remains. Less severe diabetes than this per-

mits more automatic regulation, here visualized as some remaining ability of islet cells to produce insulin in response to high glucose levels perfusing them.

It seems to be possible to weaken and destroy such islet function by the insult of continuous and excessive hyperglycemia, particularly in the mild and moderate forms of diabetes. The evidence for this is as follows. The beta granules, which are thought to be the precursors of insulin, diminish and even disappear during sustained hyperglycemia and reappear during normoglycemia. Partially depancreatized animals which are not diabetic to begin with become frankly diabetic after sustained over-feeding and improve with less food (6). Permanent diabetes has been produced in normal animals by prolonged hyperglycemia caused by administered glucose (7). Finally, every observant clinician has often seen marked improvement in human diabetes following a period of good control, both by diet alone and with the help of insulin. The reverse of this phenomenon, loss of sugar tolerance during and after poor control, is also a common experience.

Experiments conducted in Dr. Best's laboratory at the University of Toronto (8) offer additional good proof of the benefits of normal sugar levels. When a certain diabetogenic pituitary extract is injected daily into laboratory animals, islet cell degeneration and diabetes soon make their appearance and become permanent, even after the administration of the extract is stopped. But if steps are taken to prevent the high blood sugar levels produced by the extract, diabetes does not appear and normal islet cells are maintained. This is true whether the normal blood sugar levels are due to insulin, to a low diet, or even to phlorhizin, which lowers the renal threshold, thus permitting excretion of sugar which would otherwise raise the blood sugar.

The logical conclusion to be drawn from these physiological findings is that diabetes becomes more severe in the presence of higher than normal blood sugar levels, probably by exhaustion of the islet cell capacity for making and secreting insulin on demand. The opposite of this also appears to be true, namely, that diabetes may grow less severe and islet of Langerhans function improve during maintenance of normal sugar levels, usually by diet or insulin or both. In very severe, "burnt-out" forms of diabetes, comparable to the

totally diabetic state of the depancreatized animal, no improvement could be expected from good control, of course, probably because complete and irreversible islet degeneration has occurred. It is fortunate, in a way, that this is true, because it is usually difficult, if not impossible, to secure good balance in diabetes of this severity, anyway.

Infection

There is little doubt that diabetics out of sugar control are more susceptible to infection of all types than normal. Furuncles, carbuncles, infected toes and fingers, tuberculosis, ordinary respiratory infections, gingivitis, fungus infections of the genitalia, and especially cystitis and other acute and chronic infections of the urinary tract: these and other common clinical conditions are so frequently present in untreated or poorly treated diabetes and improve so rapidly with good management that they require no further comment.

It is true that most of these infections are less likely to occur if insulin is used, weight is maintained, dehydration and nitrogen deficits are avoided and symptoms are absent. Even so, most of them are much more prevalent than normal, and marked improvement customarily takes place, if high blood and urine sugar levels are reduced to normal. This is particularly true for urinary and genital infections, which seem to thrive in the presence of glycosuria, even though insulin is used and loose clinical (but not chemical) control is maintained.

Vascular Complications

The controversy between the conservatives and the liberals usually revolves around the important question of cardiac, retinal, renal, neurologic and peripheral vascular complications. All admit that they are more prevalent in diabetes than normal, that they are more likely to occur after long duration of the disease than early, and that they are the chief source of poor health and early death in diabetes now that insulin is available. Whether poor control allows them to occur more frequently or earlier than good control is the issue.

In the last few years evidence, chiefly of a clinical character, has been accumulating that poor control does bear a relationship to some if not all of these degenerative complications (9). I will not relate the detail of this evidence, but call your at-

tention to the work of Jackson and his colleagues (10); Howard Root and his group (11); Sherrill (12); Thaler and Wornas (13); and Post and Stickle (14), among others. Some experimental evidence which is suggestive, at least, is available and more is in the making.

It now seems safe to predict that clarification of this difficult problem eventually will reveal that abnormally high sugar levels do little harm in themselves, but that accompanying disorders of protein or lipid metabolism probably do. Indeed, the solution to the puzzle of the pathogenesis of arteriosclerosis may very well be contained in the answer to this question. For the present most ideas are highly conjectural, but some thoughtful students of the problem see hopes of progress here (15).

General Policy

In addition to the evidence presented by the behavior of sugar tolerance, infection and vascular disease in the poorly controlled diabetic, common sense and logic should determine the policy of every thoughtful physician in this respect. It should not be necessary to present proof that abnormal conditions are harmful and normal ones preferable. Instead, proponents of lax therapeutic policies in diabetes should produce proof that abnormal conditions are harmless. Nothing of this sort is available. Until it is, every physician should maintain as nearly normal conditions in his diabetic patients as possible in the fear, if not the certainty, that not to do so will invite trouble.

What Is Good Control?

Any plea for good control in diabetic treatment should state what is meant by the term, how often it can be attained in practice, and what are the best methods of producing it.

Diabetic patients vary, of course, in the severity of their disease and the ease with which they can be balanced. On this account my own definition of good control means the process of *continuously keeping the patient as nearly "sugar-free" as possible without some greater penalty*, such as frequent severe insulin shock or intolerable inconvenience.

The frequency with which freedom from abnormal glycosuria and hyperglycemia can be gained depends upon many factors, among which are the severity of the diabetes, the intelligence of the patient, his willingness to be trained and to follow in-

structions, the knowledge of the physician about diabetes, and the cost and accessibility of suitable laboratory facilities. Under the very best combination of these factors I believe that about 90 per cent of all diabetic patients can be kept "sugar-free" continuously, without significant insulin reactions and with a reasonable degree of convenience. In actual practice a much smaller proportion are well-controlled, of course, but more could be if the desire and knowledge were present.

Most Frequently Mistreated Cases

Probably the type of diabetes most frequently mistreated is the common, mild variety seen early in the disease and in older patients (2). These people feel fairly well, usually have not suffered much from their diabetes, are fixed in their habits and many of them do not expect to live very long. Little attention is paid to the diabetes until trouble appears and then it is too late. Intelligent planning of the diets of these patients, loss of excess weight, the daily use of small amounts of insulin in some cases, and frequent urine testing to guide the course will usually bring about perfect balance, prevent infection and may postpone vascular complications, for all we now know. This is the easiest type of diabetes to balance perfectly and the most important kind to treat that way. It is so mild that, like minimal tuberculosis or malignancy, for example, more is to be gained by meticulous care than after it has progressed in severity irreversibly. Fully one half of all of the two million or so diabetics in this country are in this category. Most of them are mismanaged, due to the indifference either of the patient or his doctor. Too often the patient's indifference is caused by his medical advisor's attitude. Diabetics like this can be the chief beneficiaries of an aggressive policy of concern over abnormal sugar levels even though the patient feels well. They are easily controlled by a little trouble, knowledge, and a conviction that there is something to be gained in doing so.

The More Severe Variety

Another, smaller, but still fairly large, group of diabetics is a more severe variety than that just described. They are often younger, thinner, have been diabetic longer, require more insulin, and more difficult to balance and more likely to have insulin reactions. They are often

discouraged because of the difficulty in keeping "sugar-free," tired of watching tests, and fearful of insulin reactions. For these reasons they accept opinions about the harmlessness of glycosuria willingly and tend to become more careless in their eating and testing habits than before and consequently to show higher sugar levels habitually.

Not all diabetes of this severity can be controlled satisfactorily, even with the greatest skill, cooperation and attention possible. But much of it can, with proper attention to diet, testing and insulin techniques. Food intakes must be constant from day to day, preferably weighed until they are known to be constant and uniform. Fractional urine tests must be made on numerous occasions to determine what time of day glycosuria is likely to appear; then suitable adjustments must be made in the food or insulin. There must be proper appreciation of the timing qualities of the various insulin preparations and selection of the one most suitable for the individual behavior. Ordinarily the intermediate insulins (NPH, globin or mixtures of regular and protamine) are most appropriate (16). In some of the most difficult cases the use of one of them twice daily, a larger dose before breakfast and a smaller one at bedtime, gives good results (16). If freedom from glycosuria is obtained but reactions occur, the method should not be condemned and the regime abandoned, but cautious adjustment of the insulin dosage, selection of another preparation with slower or faster action, or use of extra feedings as preventives of reactions are indicated. Most important, when good balance has been secured, as often it can be with patience and perseverance, violation of the regime must not be tolerated. If it occurs, prompt reversion to the previously effective routine must be urged. With good advice and proper attitudes many patients become adept and resourceful in managing themselves. Since their health and probable life expectancies depend on it they literally live by the use of their wits, and deserve great credit for so doing. Discipline and consistency of habit are the chief reasons for their success.

Dr. Joslin's Rewards

Dr. Joslin now has given more than thirty gold medals to people who have lived twenty-five years or longer with their diabetes and who have no demon-

strable signs of degenerative complications (9). It is safe to assert that most of them fall into the category described and that patient and physician alike have been faithful and intelligent for many years. The fact that this can occur in the face of many discouraging experiences and reports is a source of hope that it can occur much more frequently.

The Unstable Variety

May I now call your attention to a relatively small group of very severe diabetics in whom the presence of some glycosuria is almost mandatory? They comprise some ten per cent of the total diabetic population (2). They cannot be kept "sugar-free" without frequent, unexpected, severe insulin reactions unless they submit to routine methods of treatment which are intolerable. As in many other medical conditions the treatment can do more harm than the condition treated.

This variety of diabetes is usually classed as unstable, labile or brittle. Most juvenile patients behave like this after the diabetes has existed some years. Without insulin they would not even be alive. Some thin adults with diabetes of long duration are in the same class. Large doses of insulin usually are required waves of heavy glycosuria and unexpected insulin shock appear irregularly, acidosis occurs easily and weight is difficult to maintain. No convenient method of diet and insulin adjustment can control the sugar. Most of these patients have abandoned attempts to keep "sugar-free" because of the penalties accompanying that policy.

Good practice involves the deliberate acceptance of some glycosuria intermittently in diabetes of this severity. It is the least of several evils. Even though it is admitted to be undesirable some sugar in the urine is preferable to severe insulin shock. The only programs of routine management which are capable of keeping these people "sugar-free" are utterly impracticable. Most patients will not live up to them even though the doctor insists that they do.

Yet these patients with severe uncontrollable diabetes should not be permitted to show unlimited glycosuria. Moderation in eating, together with selection and cautious adjustment of the type of insulin which fills their needs best, can keep the glycosuria at a minimum, prevent acidosis, improve resistance to infection, elimi-

nate diabetic symptoms, and maintain nutrition (17). Probably in the long run vascular complications are also postponed or prevented. The fact that some glycosuria must be accepted in order to avoid some greater penalty does not mean that the amount of it can be ignored. Only that margin necessary to feel reasonably secure about insulin reactions should be considered acceptable. Ordinarily this is agreed to be from ten to thirty grams daily, confined to a few hours of the day, and appearing irregularly and transiently.

Prevention of Severe Diabetes

Finally, the fact that some glycosuria is accepted in severe diabetes such as that described should not encourage the allowance of it in milder diabetes where it is unnecessary and avoidable. The two things required by physicians to prevent it are, first, the conviction that it will lead to harm, and second, some attention to details of diet and insulin adjustment. The methods are available, all that is required is their thoughtful application in the nine out of ten diabetics who will profit from them.

It is my firm belief that another generation of diabetics managed according to these principles will tell a different story about the inevitability of diabetic complications. The only reason this story is not apparent now is the fact that too few patients have tried to keep well-controlled and too many doctors have failed to encourage them to do so. Here is the opportunity to practice preventive medicine in a pure form. We have learned how to keep diabetics alive; now we must learn how to keep them well.

REFERENCES

1. Tolstoi, E.: Newer Concepts in the Treatment of Diabetes Mellitus with Protamine Insulin, *Am. J. Digest. Dis.* 10:247, 1943. *Treatment of Diabetes Mellitus by the Clinical Approach*, M. Clin. North America, pp. 485-94, March 1950.
2. Goadby, H. K.: Unrestricted Diet in the Treatment of Diabetes Mellitus, *St. Thomas' Hosp. Rep.* 6:5-17, 1950.
3. Goadby, H. K. and Jacobs, J. H.: The Influence of the Control of Diabetes Mellitus on the Incidence of Long-term Complications, *St. Thomas' Hosp. Rep.* 6:244-54, 1950.
4. Colwell, A. R.: Diabetes Mellitus in General Practice, Year Book Publishers Inc., Chicago, 1947.
5. Ricketts, H. T.: Does Hyperglycemia Harm the Diabetic Patient?, *M. Clin. North America*, p. 267-77, March 1947.
6. Staub, H.: Untersuchungen über den Zuckerstoffwechsel des Menschen, *Ztschr. f. klin. Med.* 93:89-140, 1922.
7. Grafe, E. und Meythaler, F.: Weitere Beiträge zur Kenntnis der Regulation der Insulinproduktion, *Arch. f. exper. Path. u. Pharm.*, (Verh. der Deutsch. Pharm. Gesellschaft) 128:96 (suppl.), 1928.
8. Allen, F. M.: Studies Concerning Diabetes, *J.A.M.A.* 63:939, 1914.
9. Dohan, F. C. and Lukens, F. D. W.: Experimental

Diabetes Produced by the Administration of Glucose Endocrinology 44:244-62, April 1948.

8. Haist, R. E.; Campbell, J.; and Best, C. H.: The Prevention of Diabetes. New England J. Med. 223:607-615, Oct. 17, 1940.

9. Joslin, E. F.; Root, H. F.; White, P. and Marble, A.: The Treatment of Diabetes Mellitus, 9th Ed., Lea & Febiger, Philadelphia, 1952, pp. 275-6.

10. Fo d J. D.; Jackson, R. L., and Allen, J. H.: Avoidance of Degenerative Lesions in Diabetes Mellitus, Proc. Amer. Diabetes A. 1:97, 1941.

11. Wilson, J. L.; Root, H. F. and Marble, A.: Controlled Versus Free Diet Management of Diabetes, Diabetes 1:33-40, 1952.

12. Sherrill, J. W.: Diabetic Retinitis: the Relationship between Retinal Degenerative Changes and the Degree of

Diabetic Control, Bull. Scripps Metabolic Clinic 2:1-17, Oct., 1951.

13. Thaler, R. W. and Wornas, C. G.: Coronary Arteriosclerosis in Diabetics, Am. J. Digest. Dis. 19:33-37, Feb., 1952.

14. Post, L. T. and Stickle, A. M.: Fundus Changes in Juvenile Diabetics, Am. J. Ophth. 34:1119-26, Aug., 1951.

15. Warren, S. and Le Compte, P. M.: in Joslin, E. P.; Root, H. F., White, F. and Marble, A.: The Treatment of Diabetes Mellitus, 9th Ed., Lea and Febiger, Philadelphia, 1952, pp. 183-184.

16. Rohr, J. H. and Colwell, A. R.: Comparison of Intermediate Insulins, Proc. Amer. Diab. A. 8:3-11, 1948.

17. Colwell, A. R.: Problems in Treatment of Diabetes Mellitus, Pennsylvania Med. J. 52:1638-43, Dec., 1949.

Encouraging and Discouraging Research With Therapeutic Radioisotopes

MARSHALL BRUCER, M. D.*

Oak Ridge, Tennessee

Radioisotopes have not yet been used therapeutically for a sufficient number of years to establish more than a bare minimum of principles basic to their usage. Only five isotopes are being used at the present time in practical therapeutic situations. The total experience in therapy covers only a few years and this by a relatively small number of clinicians. There are about 300 isotopes which might be considered as adaptable to therapeutic problems, but in almost every case there are a myriad of physical, chemical and biological problems which must be overcome before the clinical adaptation can be considered.

Review of Accomplishments

A review of what has been accomplished so far reveals the many ways in which isotope research can be directed. An easy way to illustrate the potential usefulness of radioisotopes is through their substitution for x-rays. The cobalt⁶⁰ isotope has a very hard gamma radiation. In this sense it is similar to radium. Since Co⁶⁰ can be produced in large quantities and is cheaper than radium, it was quickly utilized as a radium substitute. Although there are many minor physical corrections to be considered, a cobalt needle will do everything a radium needle will do and will do it as well, but no better. However, since cobalt is plentiful and can be adapted to variable strength, shape, and sizes, extensions of the radium needle

idea were easily visualized and have already been put into practice. Flexible threads of cobalt wire have been used. Powdered cobalt in plastic masses have been made. Large shaped surfaces have been proposed. None of these ideas are new, but the physical limitation which made the ideas impractical with radium are now removed and the possibilities are limited only by the imagination of the investigator.

Radon Emanation of Radium

The short lived radon emanation of radium also has a long history of successful therapeutic usefulness. Such an emanation does not occur with cobalt⁶⁰ but there are other isotopes which have a similar short half life and gamma intensity. Radiogold seeds have been used to replace radon seeds. This idea is not new but if radon can be used effectively, radiogold seeds will do the same job easier and cheaper. Incidentally, other isotopes are available which might give better dosimetry.

Use of Radioisotopes

For over a quarter of a century radium has been used in large amounts to stimulate an X-ray beam. This was an important idea when high voltage X-ray equipment was unavailable, but with improvements in the design of high voltage X-ray equipment the radium pack idea became less necessary. There are about 10 radioisotopes which can be produced with sufficiently high specific activity not only to supplant radium but to challenge the pre-eminence of therapeutic X-ray

Read before the Annual Meeting of the Kentucky State Medical Association, Louisville, October 7 to 9, 1952.

*Chairman, The Medical Division Oak Ridge Institute of Nuclear Studies.

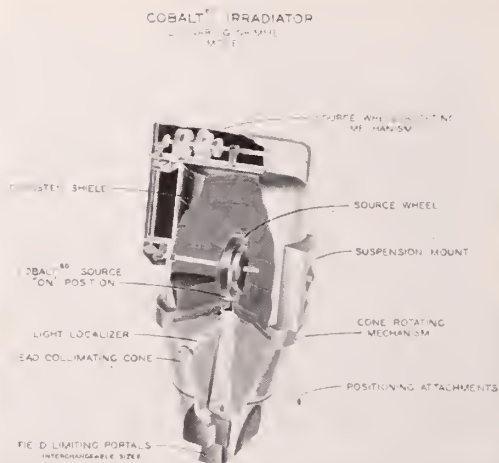


Figure 1. A cobalt⁶⁰ irradiator, developed at the Oak Ridge Institute of Nuclear Studies and the M.D. Anderson Hospital.

equipment. Three of these isotopes, Cesium¹³⁷, Europium¹⁵², and Cobalt⁶⁰, can be designed into machines which have many advantages over an electrical device of similar energy. Figure 1 illustrates one of the cobalt units now in use. Compare its simplicity and size with a multi-million volt X-ray generator. Many years ago it was discovered that the only way to treat a tumor is to maximize the dosage in the tumor and minimize the dosage in all other tissues. This is probably the first basic principle which must be followed with any form of radiation and it is not an easy principle to achieve with radioisotopes. With a beam of radiation originating outside the body, the only way to achieve maximum dosage in a tumor is by rotation of the machine or the patient. The idea is not new. It has been done successfully with X-ray machines for many years. However, with radioisotopes it can be done easier and cheaper. With the added freedom of handling a compact self contained source of radiation of variable shape, size, and intensity, the idea can be extended to special machines with specialized uses.

Value of Degrees of Penetrating Radiation

There are certain diseases, for example on the cornea, where non-penetrating radiation is desired. For these purposes beta ray devices, such as the strontium applicator, have been developed. Other beta ray sources of either greater or lesser

penetration are available. It is possible to conceive of a source of neutrons of very small dimension which would give a remarkably different distribution of radiation in tumors.

Liquid Source of Radiation

The ideas need not be limited to solid compact sources. There are many places where a liquid source of radiation could be used to advantage. For example, radiosodium at million volt energy, radiogold at 400 kv energy, radiocerium at 200 kv energy or radiothulium at 85 kv energy, can all be prepared in liquid form of low or high intensity and poured into an expansible bag within the urinary bladder. It is possible to imagine other locations where it would improve dosimetry to have a liquid source shape itself around a tumor.

All of these ideas have one thing in common, they involve a purely mechanical placement of the source of radiation into a predetermined position. The results of such treatment will all be as good and may be better than we have learned to expect from the last 50 years experience with radium and X-ray. The primary advantages are in the fields of economics, engineering, and in the release from some of the physical limitations of the older sources of radiation. These advantages must not be minimized since they are appreciable in their scope and with imagination the development of mechanically placed radiation will become a major therapeutic advance.

Colloidal Radiogold

There has been developed more recently an extension which goes one step beyond pure mechanical placement. This has developed mainly around colloidal radiogold. Radiogold was first used by direct injection into a mass of tumor tissue. This method was a disappointment at first because of the problems of achieving a uniform distribution of the colloid in tissues of varying density. Recently, however, radiogold has been injected into and around the prostate. The disposition of tissues in this particular location allows for multiple high pressure injections within the capsule of the prostate and diffuse injections in the spongy tissues around the gland. The clinical results are encouraging and the distribution of beta and gamma dosage is such that the tumor can be irradiated without signifi-

cant damage to a critical organ. Thus, the first principle of radiation therapy, that of maximizing the dosage in the tumor is adhered to and the second principle is followed. The irradiated tumor must be more sensitive to radiation than any nearby critical tissue.

This semi-mechanical placement of a radioisotope within the body has also been used in treating pleural or peritoneal effusion from carcinomatosis. Colloidal radiogold is simply placed within a cavity and has the property of surface adsorption. The distribution of radiation is not uniform and the means by which it stops the production of fluid is unknown, but the fluid stops accumulating in a large number of cases. It is believed that most of the effect of this treatment is due to the non-penetrating beta radiation of gold¹⁹⁸, in which case the effective dosage is confined to a very thin layer of tissue. Pathological studies bear out this assumption in that there is damage to the exposed surfaces but not to the main mass of even small tumor nodules. Such a therapeutic usefulness brings up a principle, too often forgotten, that where a cure is not possible palliation, though second best, is still desirable.

Methods of Administering Radiogold

These are only two ways in which semi-mechanical placement has been attempted. Another semi-mechanical method is by the direct injection of colloidal suspension into the blood stream. Any large foreign particle will be caught by the reticulo endothelial system and if radioactive should selectively radiate this one portion of the body with some spread to other tissues. Figure 2* is an autoradiogram with sections of bone from a patient who has been given radiogold intravenously. If we compared this picture with Figure 3,* an autoradiogram of the same section of bone from a patient who had been given gold intrapleurally, with the photographic emulsion exposed for the same length of time, it would have been impossible to see anything more than a faint trace of activity. In both cases there is some escape of gold into the critical bone marrow.

In the case of intravenous administration this escape is significant. In the case of intrapleural injection there is probably

an insignificant escape of radiogold to the bone marrow. In the case of intravenous colloidal radiogold the liver receives the major portion of the dosage and this has not been therapeutically successful. Attempts have been made to change the particle size of the colloid or to coat the colloid with other substances which will bypass the liver. Other attempts have been made to block the liver or to inject directly into blood vessels with localized distribution, or directly into end artery systems. None of these methods have been successful as yet and some of the attempts have been outright failures. However, the idea of semi-mechanical placement within the body is very new. It should not be discouraging that so many attempts have failed but should be encouraging that, within a short period of three years, two new therapeutic methods appear to be reasonably successful.

The injection of radiocolloids into the blood stream to affect a radiation of the reticular endothelial system goes a little beyond a purely mechanical placement of the isotope. It demands that an organ of the body do some metabolic work in achieving the end localization. This method of depending upon the avidity of a particular tissue for an isotope brings up the most desirable method of using radioisotopes, and the one which has been most disappointing. The already classical example of localization by metabolic function is in the use of radioiodine. Biologically, iodine is a sport among elements in that it is selectively concentrated to a remarkable extent by one organ. The thyroid gland in turn is a sport among organs, in that it can be totally removed from the body, is relatively radiosensitive, and its tumors sometimes act like normal tissue. To this extent, that the thyroid tumors do act like normal thyroid tissue, they will rapidly pick up iodine from the blood stream and will hold it for long periods of time. This brings up another principle of therapy with radioisotopes. The radiation must be localized within the tumor within a small fraction of one half life, and must remain in place for a significant portion of the radioisotopes decay time.

Radiophosphorus

Another example of the metabolic localization of radioisotopes is with radiophosphorus. It was the first isotope to be used therapeutically and has been some-

*Figures 2 and 3, omitted because of reproduction difficulties are on file in the Journal office and may be seen on request.

what of a disappointment. Phosphorus has a normal metabolism throughout most body tissues. Although it is picked up by rapidly growing tumor tissue, to a somewhat greater extent than in normal tissue, it is not confined to tumor. Figure 4 shows an autoradiogram of the distribution of radiophosphorus in the vertebral bone marrow of a patient with reticulum cell sarcoma. Thus, the first principle of maximizing tumor dosage and minimizing normal tissue dose is not ideally adhered to. In some of the lymphomas where the tumor is very sensitive to radiation, radiophosphorus has been of value not as a cure but for palliative purposes. In this sense it may be considered a successful therapeutic approach. In one type of disease, polycythemia vera, radiophosphorus has had remarkable success. However, spray radiation with an X-ray machine or with radiosodium, or with any other generally distributed isotope, would accomplish the same purpose. The value of radiophosphorus lies in the remarkable sensitivity of young red cells to radiation and not to a specific metabolic pattern.

Radiogallium

Many other isotopes have been tested for their metabolic pattern in tumor tissue. A good example of an almost successful attempt is with radiogallium. Gallium has a good localization within the metastases in the lungs from osteogenic sarcoma, as shown in Figure 5. However, gallium⁷² has a very short half life of 14 hours. It takes much longer than 14 hours to achieve localization and during this time most of the radiation is distributed throughout the body. Further, even when well localized, gallium⁷² has a very high gamma energy and no matter where in the body the chemical gallium is deposited, the absorbed energy of radiation is distributed very uniformly over the total body mass. This difference between the pattern of distribution of absorbed energy and of the chemical brings out another principle. The therapeutic effectiveness of a radioisotope depends largely upon its decay scheme. High energy gamma radiation is seldom well localized in the body. Low energy beta radiation is seldom well distributed throughout a tumor.

Use of Isotopes of Many Elements

Isotopes of many elements can be used as similar examples. Sulfur, antimony,

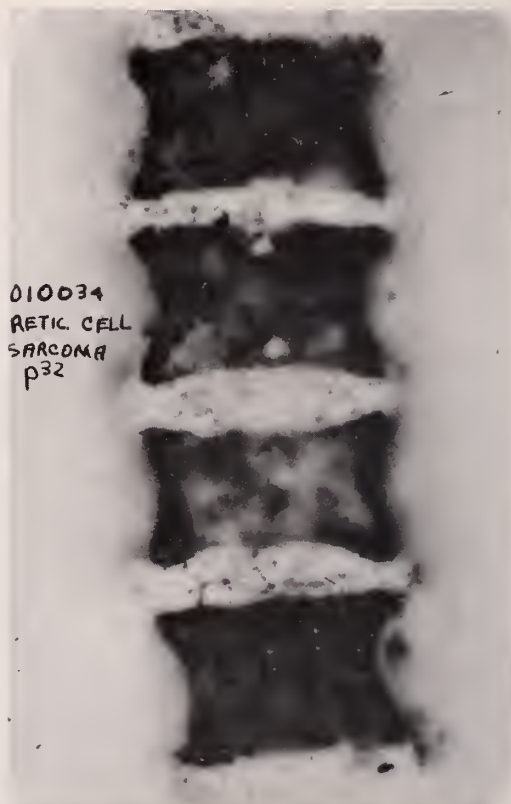


Figure 4. Autoradiogram of a section of vertebra from a patient with reticulum cell sarcoma who had received radiophosphorus.

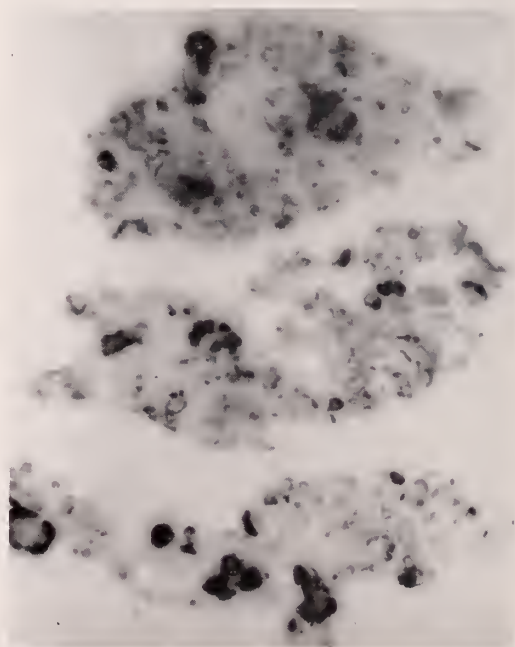


Figure 5. A photograph and autoradiogram of a thin slice of lung from a patient who had received gallium⁶⁷. The patient had multiple metastases from osteogenic sarcoma.

arsenic, yttrium, germanium, manganese, magnesium, rhenium, zinc, and others have all been briefly sampled. Some give no localization; some localize in critical tissues, some give fair localization but have poor energy characteristics. Others have the wrong half life. There was one rare example and probably no other simple element will be found which matches the promise of radioiodine. However, the elements have never been considered to be good pharmacologic agents; they must be used as portions of more complex molecules, and there is plenty of evidence that the molecular carrier of an element influences the metabolic pattern of distribution. The future usefulness

of the metabolic positioning of radiation depends wholly upon research in basic tumor chemotherapy. Such research may not yield immediate results. Most ideas in tumor chemotherapy have been complete failures. It is to be expected that most of our present and future ideas will also fail; but if one ever is successful, there are about 30 radioisotopes which have good radiation characteristics and may be attached to the molecule. Even though it has been a continuous source of disappointment, in this sense the metabolic placement of radiation is still the greatest challenge in the field of therapeutic radionuclide research.

Hydatidiform Mole and Chorionepithelioma

JAMES R. FREEDMAN, M. D.

Bowling Green

ROBERT GRECO, A. B., B. S., M. D.

Louisville

Hydatidiform mole is a proliferation and degeneration of the stroma of the chorionic villi, with edema, and an increase in the syncytium. It is a relatively uncommon disease, occurring in 1:2500 pregnancies; its malignant counterpart, chorionepithelioma, is still rarer. The etiology of mole is at present still unknown, but it is believed that the ovum is at fault. It is considered by many to be a degenerative disease, but has also been looked upon as being neoplastic.

Chorionepithelioma is a tumor that develops from the fetal ectoderm and follows a full-term pregnancy, an abortion or an hydatidiform mole, and presents an exuberant growth, early and extensive local and general metastases. The etiology is also unknown at present.

Histological Diagnosis

Histologically there are three essential pathologic changes upon which a diagnosis of hydatidiform mole is dependent: (a) a trophoblastic proliferation; (b) a decreased number of villous blood vessels; (c) hydropic degeneration of the villous stroma.

Benign Moles

In a benign mole, the trophoblastic proliferation involves both Langhans' layer and syncytium, there is no evidence of anaplastic cell changes and no tendency to the destructive invasion of uterine tissues. The villous stroma is characteristically very edematous and degenerative and the villous pattern is well preserved even though greatly dilated villi are seen. The decreased number of blood vessels during the disease is a direct mechanical cause of the cystic formations. Any evidence of anaplastic activity should make us entertain a diagnosis of chorionepithelioma until proven otherwise.

Between the frankly benign hydatidiform mole and the malignant chorionepithelioma, one encounters many variants, depending upon the amount and type of invasion into both the uterine musculature and the blood stream. Many types are encountered and as yet there is no universal agreement as to just how these varied pictures should be classified.

In chorionepithelioma, the chief feature is invasion by trophoblastic cells into the uterine musculature and blood vessels, accompanied by destruction of tissues, coagulation necrosis, hemorrhage, and complete derangement of the villous pat-

tern. The growth pattern is more important diagnostically than cell changes.

DeLee and Greenhill list the mortality rates as ranging from 2 to 12% for mole, and 10 to 60% for chorionepithelioma, the lower figures being the result of a survey of world literature in 1930.

Thirty Years Statistics

The statistics that we are presenting here encompass approximately a thirty-year span at St. Joseph Infirmary, Louisville, from the opening of the obstetrical department in 1922 until the present time (March 31, 1952). During this period of time there has been a total number of 26,678 deliveries (Table I). It is impossible to check back and determine the number of miscarriages that have occurred during this time with any degree of accuracy, so therefore our statistics are based on the number of deliveries rather than on the number of pregnancy admissions.

The number of hydatidiform mole pregnancies admitted during this thirty year period was 15 (Tables I and II), with the incidence of mole to full-term deliveries

being 0.0562% of 5.62 per 10,000 deliveries. Of the 15 cases of mole, 6 or 40% developed chorionepithelioma, a rather high percentage. All 6 chorionepitheliomas were preceded by mole pregnancy, 100% rather than 50% quoted as an average by some writers.

Average Age

The age of the patients varied from 21 to 45 years with an average of 29.13 years (Table III). The parity ranged from 0 to 11 with an average of 2.69. There were 3 primiparas, 10 multiparas, and 2 of unknown parity. The patients were all white with the exception of one Negro patient, and all were private patients with the exception of one house case.

Table III

Case, Age, Parity, Race and Pathology

Case	Age	Parity	Race	Mole	Chorio
1	21	Unknown	W	+	0
2	41	11	W	+	+
3	23	1	W	+	0
4	22	1	W	+	+
5	29	4	W	+	+
6	26	1	W	+	0
7	45	10	W	+	0
8	23	0	W	+	0
9	33	3	W	+	0
10	39	1	W	+	+
11	37	Unknown	W	+	+
12	23	1	W	+	0
13	21	0	W	+	0
14	25	0	C	+	+
15	29	2	W	+	0

Symptoms

The patients had periods of vaginal bleeding prior to hospitalization, ranging from 21 to 150 days, an average of 60.2 days, and the number of days from the last normal menstrual period to hospitalization varied from 62 to 210, averaging 117.66 days. The size of the uterus was, on the whole, larger than would be expected from the date of the last menstrual period (Tables V and VI). In only two cases was the uterus comparable in size as to what might have been expected from the last menstrual period.

The red cell count ranged from a high of 4.61 million red cells and 78% hemoglobin to a low of 0.87 million red cells with 12% hemoglobin. The white cell count varied from 26,500 to 4,200, and was in no way correlated with the red cell count

Table I

St. Joseph Infirmary, Louisville
1922 to March 31, 1952

Total Deliveries	26,678
Hydatidiform mole pregnancies	15
Incidence per 10,000 deliveries..	5.62 or 0.0562%
Chorionepitheliomas	6
Incidence per 10,000 deliveries..	2.24 or 0.0224%
Incidence of mole undergoing malignant degeneration	40%
Incidence of chorionepithelioma arising from mole	100%

Table II

Hydatidiform Mole Pregnancies
and
Chorionepitheliomas Per Year

Year	Mole	Chorio
1925	1	0
1932	1	1
1934	1	0
1946	3	2
1947	1	0
1948	1	0
1949	2	1
1950	4	2
1951	1	0
Total	15	6

and hemoglobin determinations. (Table VII).

Methods of Treatment and Diagnosis

Methods of treatment varied from spontaneous expulsion to total hysterectomy with bilateral salpingo-oophorectomy (Table VIII). In the majority of the cases, dilatation and curettement were first carried out. The patient was then carefully checked to determine whether or not further treatment was necessary. Aschheim Zondek or Friedman tests were carried out at frequent intervals and if the quantitative determinations revealed a flare-up or if the clinical signs or symptoms recurred, further surgery resulting in total

Table IV

Last Menses Prior to Admission and Onset of Bleeding Prior to Admission		
Case	LMP (Days)	Onset (Days)
1	120	106
2	83	23
3	73	40
4	180	42
5	210	105
6	150	150
7	120	42
8	180	120
9	75	21
10	111	49
11	62	17
12	121	60
13	110	75
14	100	30
15	70	23

Table V
Size of Uterus

Case No.	Fingers above (+) or below (—) umbilicus
1	+ 2
2	Umb.
3	— 3
4	+ 3
5	— 3
6	— 2
7	Sym.
8	Umb.
9	Umb.
10	Umb.
11	Unk.
12	Umb.
13	Unk.
14	Umb.
15	— 3

Table VI

Size of Uterus Compared to LMP	
Uterus larger than calculated by menses....	9
Uterus smaller than calculated by menses....	2
Uterus same size as calculated by menses....	2
Unknown	2

Table VII

Case No.	RBC (Million)	Hgb. % (Sahli)	WBC
1	2.73	50	4,200
2	2.28	40	18,300
3	4.61	78	12,600
4	2.61	58	11,700
5	0.87	12	17,300
6	3.70	68	8,900
7	2.05	39	13,400
8	3.10	60	10,800
9	2.78	53	19,900
10	3.37	62	26,500
11	3.54	60	14,800
12	2.84	52	10,600
13	3.44	63	19,100
14	1.72	32	8,800
15	3.60	64	6,900

Table VIII

Treatment and Management	
Case	
1.	Transcervical hysterectomy; bilateral salpingo-oophorectomy.
2.	Dilatation and Curettement followed by transvaginal hysterectomy and bilateral salpingo-oophorectomy one month later because of recurrent symptoms and signs.
3.	Dilatation and Curettement.
4.	Hysterotomy followed by complete hysterectomy and bilateral salpingo-oophorectomy two and one-half months later because of recurrent symptoms and signs.
5.	Complete hysterectomy.
6.	Spontaneous expulsion of mole.
7.	Spontaneous expulsion of mole.
8.	Dilatation and Curettement.
9.	Dilatation and Curettement.
10.	Dilatation and Curettement followed by total hysterectomy and bilateral salpingo-oophorectomy one month later because of recurrent symptoms and signs.
11.	Dilatation and Curettement followed by transcervical hysterectomy and bilateral salpingo-oophorectomy three weeks later because of recurrent symptoms and signs.
12.	Dilatation and Curettement.
13.	Dilatation and Curettement.

14. Hysterotomy followed by complete hysterectomy and bilateral salpingo-oophorectomy three months later because of recurrent symptoms and signs.
15. Dilatation and Curettement.

hysterectomy and bilateral salpingo-oophorectomy was carried out. Aschheim-Zondek or Friedman tests were done, as well as chest plates taken, if the diagnosis was chorionepithelioma. All the patients had a diagnosis of hydatidiform mole, 6 of whom underwent malignant degeneration and a definite pathological diagnosis of chorionepithelioma was made. Invasion of the uterine musculature was used as one of the criteria in making this diagnosis. These sections were reviewed both by ourselves and by Dr. Sam H. Black, Pathologist, St. Joseph Infirmary, Louisville, and all 6 cases showed muscle invasion in varying degrees.

Results of Treatment

Cases 3, 6, 9, and 12 have followed their mole pregnancies with normal pregnancies and deliveries, and Case 13 recently delivered a full-term stillborn infant, the cause of death undetermined. All patients, both with hydatidiform mole and chorionepithelioma, are alive and well so far as we can determine, although the mortality rate is usually quite high in the

cases of chorionepithelioma. All have been traced up to 1951 as can be seen from Table IX with the exception of Case 2. This patient moved out of the state and further information is not available concerning her condition. However, at the time of her last visit in 1945, she was in good health, 13 years following removal of the uterus for chorionepithelioma. We know of no deaths that have occurred in this series and have recent information concerning 14 of them.

Unrecognized Cases

There apparently were other mole pregnancies that have occurred in this hospital, particularly in the interval between 1932 and 1946, but if they did occur, it has not been noted in the final diagnosis of the patient on leaving the hospital, since we have included all patients that did have a definite final hospital diagnosis of either hydatidiform mole or chorionepithelioma admitted during the past thirty years. Also, during this time, patients suspected of either of these two conditions may have been taken to other hospitals in this area, and records during this time were not as complete as they might have been due to the shortage of hospital personnel. Other than these, we cannot account for the noticeable gap between 1934 and 1946.

Table IX
Latest Follow-ups of Patients and Survival Time

Case	Year	Results
1.	1951	Living and well. 26 years survival.
2.	1945.	Living and well. 13 years known survival. Patient moved out of state; further information not available.
3.	1951.	Living and well. 17 years survival. One year after evacuation of mole, patient delivered a viable infant.
4.	1951.	Living and well. 5 years survival.
5.	1951.	Living and well. 5 years survival.
6.	1951.	Living and well. 5 years survival. Two years after evacuation of mole, patient delivered a viable infant.
7.	1951.	Living and well. 4 $\frac{3}{4}$ years survival.
8.	1951.	Living and well. 3 $\frac{3}{4}$ years survival.
9.	1951.	Living and well. 32 months survival. 14 months after evacuation of mole, patient delivered a viable infant.
10.	1951.	Living and well. 24 months survival.
11.	1951.	Living and well. 23 months survival.
12.	1951.	Living and well. 19 months survival. One year after evacuation of mole, patient delivered a viable infant.
13.	1951.	Living and well. 13 months survival. One year after evacuation of mole, patient delivered a stillborn infant.
14.	1951.	Living and well. 12 months survival.
15.	1951.	Living and well. 5 months survival.

Table X

Survival

Number of deaths	0
No recent follow-up	1
Patients known living and well.....	14
Longest interval of time	26 yrs.
Shortest interval of time	5 mos.

Conclusions

1. Hydatidiform mole pregnancy is a rare occurrence; chorionepithelioma is even rarer.
2. Dilatation and curettement should be carried out as soon as the diagnosis is established; further surgery depends on the individual's clinical course.
3. The number of chorionepitheliomas preceded by hydatidiform mole is

greater in this series than is usually found in the literature.

4. Blood loss can be very great.
5. The diagnosis of chorionepithelioma is difficult even for an experienced pathologist, and the distinction between it and malignant mole is exceedingly difficult.
6. In view of the fact that all the patients are still living, we must admit that the diagnosis of chorionepithelioma per se is open to question.

REFERENCES

1. Beck, Alfred C., *Obstetrical Practice*, 3rd ed., 1942, Williams and Wilkins Co.
2. Crossen, H. S., and Crossen, R. J., *Diseases of Women*, 9th ed., 1944, C. V. Mosby Co.
3. DeLee J. B., and Greenhill, J. F., *Principles and Practices of Obstetrics*, 9th ed., 1947, W. B. Saunders Co.
4. Novak, Emil, *Gynecological and Obstetrical Pathology*, 2nd ed., 1947, W. B. Saunders Co.

Management of Carcinoma of the Cervix

JESSHILL LOVE, M. D.

IRVIN H. SONNE, JR., M. D.

ROBERT GRECO, M. D.

Louisville

This narration of ideas for the treatment of carcinoma of the cervix is neither formal nor scientific, but is prepared for the profession to explain the long drawn out and tedious course of treatment for carcinoma of the cervix uterii and some of the reasons involved. Also, it is designed to impress the early and asymptomatic signs of this disease.

Morbidity Statistics

There were 166 deaths reported from carcinoma of the cervix in Kentucky during 1951. The Kentucky State Cancer Registry received 454 cases of cervix carcinoma. This roughly indicates a survival rate of 67.5% for one year. At first examination this survival rate appears rather low, suggesting that a major portion of the cases presented themselves for treatment during an advanced stage and/or there is a severe laxity in case reporting. I understand that cancer is now a reportable disease. Statistically, it is an interesting fact that communities or cities that have a high level of reporting of cases

have a high death rate by case disease. The Bureau of Vital Statistics of the United States by a survey of the entire population has shown the incidence of carcinoma of the cervix to be 24.9 per 100,000 female population. This figure holds fairly well with the number of cases reported in Kentucky for 1951.

Survival Rate

The survival rate of treated cases of carcinoma of the cervix from several hospital centers report an overall 5 year survival rate of about 35% for all the various stages—stage I—70%; stage II—45-50%; stage III—25%; stage IV—0-3%. Such reporting of a higher survival rate in stage I, or clinically earlier disease, bears out the hackneyed expression of early diagnosis, the better chance at cure. The relatively low survival rate of stage I clearly points out that 25-30% have metastases when submitted to treatment. After the completion of treatment, the patient should be seen, interviewed and examined carefully for tumor control, recurrence or metastases. Malignancies of various locations require individualized attention by reason of the expected behavior.

Early Diagnosis Important

The early diagnosis stems first from the patient's urge to consult her doctor in regards to signs of cancer of the cervix and the response of the doctor in an examination and diagnostic procedure. The day is past when all abnormal signs or symptoms are attributed to the "change of life." But there is still a tremendous amount of education to be done, particularly when one notes that 80% of all cases reported or seen for treatment are stage II.

Pertinent Signs

The pertinent signs are asymptomatic. Discharge and spotting is the most common complaint. Post-coital spotting is the next most common disorder listed. Prolongation of the menstrual period, intermenstrual spotting and bleeding and spotting and bleeding after exercise or heavy work are given in order of increasing gravity. Bleeding or hemorrhage and backache with carcinoma of the cervix is encountered in advanced disease. A survey of 125 consecutive cases in 1949-50 found only 3 patients that denied pregnancy and 5 that were certain their husband or partner was circumcised.

Requirements for Actual Diagnosis

The actual diagnosis relies upon a bimanual and speculum examination and a biopsy. This classic procedure is well known. Any tissue biopsy forceps, scissors or knife may be used. There are several instruments that make the individual case easier to biopsy. The careful and planned bimanual, rectal, vaginal and speculum procedure gives an idea of the extent of the disease or stage. Thus, the staging of the case permits the examiner to give some prognostic information to the family or patient. Specialized examinations such as the intravenous pyelogram and cystoscopy are useful. Chest films are practically routine.

Clinical observations for several years have impressed us with the idea that large, bulky, exophytic growths of the cervix give a rapid and better result than the excavated or ulcerated type of cancer. To the examining finger the cauliflower mass is usually mobile and not fixed while the ulcerated malignancy feels indurated and invasive about its circumference with early fixation and metastases. Thus, the exophytic mass carries the better prognosis.

Proper Advice to Patient

It has long been our practice to reply to patient inquiries about their disease, to tell them they have cancer if they ask but not to dwell upon the extent or prognosis. A few patients may demand to know the full gravity and expectancy of their particular case for business or economical reasons.

Treatment

In general, treatment of carcinoma of the cervix uterii is that of radiological management for all stages except for the non-invasive or carcinoma in situ (intra-epithelial carcinoma) which is usually managed by complete pan-hysterectomy. The uncontrolled carcinoma of the cervix that shows positive biopsy 2 and 3 months after adequate radiation is submitted to exploration and a radical hysterectomy if feasible. The uncontrolled carcinoma of the cervix that presents moderate parametrial invasion without fixation to the pelvic wall and positive biopsy 3-4 months after radiotherapy is also submitted to laparotomy and a pelvic exenteration if feasible. The radical exenteration is seldom offered except after several surgical consultations and then only to patients of a very strong will to live in spite of the surgical defects that are produced with this procedure.

Radiation Sequelae

Proctitis and cystitis are expected as radiation sequelae in about 15% of the cases and usually in the advanced stage. The occurrence is much lower since the advent of the stabilized radium applicators and careful directional control of the X-ray beam. The radium radiation is directed to the disease area and carefully held in position. Fistulae usually result from resolution of tumor implants or tumor invasion of the bladder or rectum. Adequate cancericidal doses destroy the deposits leaving defects in the viscera. It must be remembered that these deposits would ultimately produce a fistula by the destruction of the visceral wall.

Therapy Sequence

The sequence of the therapy depends largely upon the disease stage and the presence of infection, necrotic tissue, tumor size and bleeding. About 80% of the patients in Kentucky when first seen are stage II, which usually carries fairly large

volume of tumor, necrosis, infection and bleeding. Thus, external X-ray therapy is delivered for approximately $\frac{1}{3}$ of the total tumor dose. Radium is then properly distributed, the X-ray therapy completed and a final radium dose applied. Contrawise when the stage is early and a small amount of tumor is present, the complete radium dose may be given and followed by X-ray therapy. In advanced cancer with parametrial invasion and bleeding, part of the radium dose may be given to central local necrosis or bleeding tumor, then a completed schedule of X-ray therapy and finally interstitial radium needles used to complement or raise the lateral parametria to the pelvic wall to a full cancericidal dose. A combination of external X-ray and radium will give a more improved homogeneity of the parametrial dose than either of the two alone.

Summary of Radium Sequence

To summarize briefly, the rationale of radium or X-ray sequence is to spread the total tumor dose over a 4 to 6 week period of time, dividing the radium applications into at least two sessions and interposing periods of X-ray therapy so that the extreme high local radium dose to the cervix will not give sudden tumor destruction, and also to allow the high radiation dose to be extended throughout the parametria and tumor bearing node area for optimum length of time.

Stage I

$\frac{1}{2}$ radium dose (3-4 days)
Rest 3-5 days
 $\frac{1}{2}$ radium dose (3-4 days)
24-30 days of X-ray therapy

Stage II

$\frac{1}{3}$ X-ray therapy
 $\frac{1}{2}$ radium dose
Complete X-ray therapy
 $\frac{1}{2}$ radium dose

Stage III

$\frac{1}{3}$ to $\frac{1}{2}$ X-ray therapy
 $\frac{1}{2}$ radium dose
Complete X-ray dose
Complete radium
(Parametrial radium needles)

Stage IV

$\frac{1}{3}$ to $\frac{1}{2}$ X-ray therapy
Radium needles to external metastasis
Local radium to cervix area
(Colostomy and surgical relief measures)
Repeated X-ray or radium for palliation.

Therapy Sequence Flexible

It is realized that this outline of therapy sequence is flexible and may be changed to suit the individual, her economical or in-residence status. We have gradually changed the modality during the past few years to fit into the general ideas of the tried methods of the Manchester group in England and the Regaud group at the University of Paris. These ideas have been altered and applicators changed to suit our needs. These two therapy centers and others that devote all their time to radiotherapy believe that larger effective and safer doses may be delivered by moderate protraction of the therapy time period and employing highly filtered X-ray and radium sources, these radium sources being of smaller unit quantities adequately spaced and distributed throughout the tumor area. Properly distributed and balanced amounts give a more nearly homogeneous dose that may be calculated physically and mathematically from post-radium films. The dose of radium and X-ray is estimated and quoted in "r" units. The "r" unit is an international unit that specifies a certain amount of radiation. The obsolete dose term of "milligram hours" defines only the amount of total radium used and gives no idea of the radiation dose delivered to a specified area.

The treatment of any malignancy located within the body, such as carcinoma of the cervix, requires a recorded historical knowledge of the sequence of events, symptoms and signs leading up to a comprehensive complete physical examination of the patient and a detailed study of the tumor and tumor bearing area. Every possible means or procedure should be used to give further information of the status of the disease.

An Approach to Metastasis Problem

In order to approach the cervix and pelvic metastatic avenues more accurately, cross-section diagrams are made of the patient at the tumor level. The diagrams are marked by measurement to show the tumor area and invasion. The diagrams are used to plan the X-ray therapy approach to the tumor. By carefully selecting the ports of entry, improved dose totals and dose distribution are achieved.

Radium Therapy

The diagrams are also used to basically determine the spread of the radium ther-

apy. The individual patient is fitted for size and uterine canal length in order to select the proper radium applicator. A central tandem is used to irradiate the entire length of the canal and to throw the dose laterally into the parametria. Two ovoids are employed for the vaginal fornices and to each side of the cervix. The ovoids throw the dose to the cervix and also complement the tandem dose into the parametria. A separator or spacer fixed to the tandem has ridges that dove-tail into slots in the ovoids that will interlock the system into a rigid applicator and hold firmly in place from side pressure from the vaginal wall and packing. The radium applicator is so loaded and the sources distributed at fixed distances to deliver 1000 "r" per day.

When intensive radium therapy is delivered to the cervix and point "A," a lead strip is used to protect the cervix, bladder and rectum during the X-ray therapy.

It has been shown that overdosing of the cervix is easy to accomplish when X-ray and radium are both delivered to the cervix.

Summary

(1) The sequence and modality of the management of cervix carcinoma has been discussed briefly to acquaint the profession with the reasons for the lengthy treatment periods (5-6 weeks) and reasons for the two or three radium applications.

(2) Recognition of the earlier signs and symptoms lead to presenting an early stage of disease for treatment.

(3) It is urged that "routine physical" examinations include a bimanual-speculum examination of the genital tract and a biopsy of any erosion of 3-4 weeks' duration, particularly with intermenstrual or post-coital spotting.

(4) There should be a rigid follow up examination schedule for all cancer cases after treatment.

Obligations of the Individual Physician in the State Medical Profession in Civil Defense

Committee on Medical Emergency Service

G. Y. GRAVES, M.D., Chairman, Bowling Green; **THOMAS V. GUDEX, M.D.,** Louisville; **LELAND PAYTON, M.D.,** Lynch; **W. MOUNTJOY SAVAGE, M.D.,** Maysville; **LEON HIGDON, M.D.,** Paducah; **JOHN S. SPRAGUE, M.D.,** Lexington

Civil Defense may be defined as self-help, neighbor help. It is our insurance policy against defeat or destruction. Its purpose is to be flexible, to keep every man on the job no matter what comes; and it is a means of protecting our families, our industries and our way of life. The home front must be kept at its highest state of health in time of emergency.

The Necessity of Civil Defense

Civil Defense is necessary because for the first time we are not protected by the natural barriers which we have always enjoyed. We are no longer able to increase leisurely our industrial might and our immense productive capacity guarded, as they have been in the past by powerful allies, by our natural barriers of the oceans and by the great distances which an attacking force would have to traverse. Instead, we are faced with a powerful enemy who has the atom bomb and air-

planes capable of dropping it upon any city in the United States. For the first time we are vulnerable. Our war must be fought not only by the armies in the field, but by every civilian at home.

In addition, we are psychologically unprepared for this warfare or this problem. In all probability the blow will be delivered suddenly without giving us any chance, and unless we are well prepared we could be knocked out before we start to fight. The average citizen or doctor has a widespread apathy or unawareness, or even indifference to our danger. We want to be let alone to pursue our peaceful way. Unfortunately the choice is not ours. If we were attacked, we would have to fight or accept consequences too dreadful to contemplate.

It is estimated that we can reduce our casualties at least 50 per cent if we are prepared. We must plan how best to use our resources, our men and our materials. We must be able to carry out our plans.

Duty of the Physician and Laity

Briefly, the duty of every physician and every individual is to serve to the best of his capacity in any Civil Defense plan in order to make its efforts successful. The Kentucky State Medical Association has been given the responsibility of organizing the medical profession for Civil Defense. It has accepted the responsibility and obligation of planning so that the physician individually and collectively will be used to the best possible advantage in preserving the health and welfare of the community.

Importance of the Physician

The individual physician has a vital part to play in the problem of Civil Defense. He is the keystone of the arch upon which Civil Defense will stand or fall. If the people have assurance that their health and welfare will be taken care of in case of disaster, their morale will be immensely improved.

The physician in the disaster area must take care of not only the usual sick or injured, but also the great mass of casualties resulting from the atom bomb are primarily his responsibility. He must give his time and thought to the best means of accomplishing this purpose. Not only must he find his place in the local Civil Defense effort, but furthermore he must see that it is as sound and efficient as possible. He must become a teacher of laymen so that they can help him in carrying out both preventive and therapeutic measures to minimize or cure injury and lessen damage. He will have to help in the training of many more first aid workers, nurse aids, technicians, stretcher bearers, etc. He must fit his own capacities and special skills into the aid station teams and tender his services to the hospitals and the mobile teams for emergency duty. He must study the problems of public health and preventive measures, of sanitation, of the best course to pursue when dealing with thousands of mass casualties, of the hundreds of homeless, the hungry, and the panic-stricken. The medical problems of this group are different from those of the ordinary civilian population.

The physician in the support area must be ready to go to the aid of his overworked brother in the disaster area. There are not enough physicians in the state of Kentucky to care comfortably for the vic-

tims of an atomic bombing. Not only must he be prepared to help people in the bombed city, but he must be ready to take care of the illness and accidents of his own people, plus a large load of evacuees. The physician must realize that he is a leader in his community, especially in matters of health, and that people naturally look to him. He must not stand back; he must be ready to do his part and help others to do the same.

Obligations of Our Association

The obligations of the State Medical Association and its societies are also many and varied. The association must study the health problems involved in the Civil Defense Program, its resources to deal with them, the demands of the armed services, and the collection of adequate quantities of blood. The state society and its physicians must be leaders in solving the problems of health, of welfare and of caring for these numerous injuries. If we do not grasp this leadership, someone will assume the authority to tell us what we shall do. The state society must find some way of overcoming the indifference and the apathy in a great number of its members. It must show them that this is their problem, that their own families, their friends, their patients and their profession may suffer as a result of this unconcern. Perhaps by assigning more of them to various tasks, more will become interested in the program. Much missionary work must be done to sell them the importance of this vital task.

As Perrin S. Long has aptly phrased it, "For over two years there has been talk about Civil Defense. It is time to stop talking and get to work. If the people are not ready for the first enemy attack, a second may find them less ready. We of the medical and allied professions must forget petty jealousies and annoyances; we must stop jockeying for position; we must submerge the prestige of individuals and groups; and we must stop being rank individualists so that when we are called on to function in Civil Defense we will not fail."

Type of Atomic Injury

There is no type of injury in atomic warfare that does not have its counterpart in civilian life. We have the knowledge and the training to take care of any type of atomic injury. The problem of the medical profession is not one of plan-

ning to take care of the individual casualty, it is a problem of taking care of mass casualties. Suppose a bomb should be dropped without warning at Fourth and Broadway at 12 o'clock noon. We would have the problem of 80,000 to 100,000 living casualties occurring in the space of a few seconds. Probably one-half of the doctors of Louisville would be killed or wounded and 80 per cent of the hospital facilities would be annihilated. Imagine taking care of this number in a city in which great fires are raging, the water mains burst, the utilities damaged so as to be useless, thousands buried under destroyed buildings, and the streets impassable because of destruction and rubble. Under these conditions we shall be expected to take care of from 40,000 to 80,000 casualties, of which 60 per cent will suffer from burns, one third of which will be major. Fifty per cent will have some mechanical injury, such as fractures, cuts, lacerations, chest injuries; 15 per cent will be in severe shock, and there will be 20 per cent radiation injuries. Of the entire number there will probably be 65 per cent walking injuries and 35 per cent litter cases.

The Medical Association must see that all the information on the treatment of casualties of atomic warfare is placed in the hands of the physician. We must realize that the ear, nose, and throat man, the obstetrician, the internist may have to treat people and injuries entirely foreign to their specialized training. To accomplish this we must hold meetings all over the state, in which the treatment of the various types of casualties is discussed. All physicians must make an effort to attend these discussions.

The medical association must work in close harmony with the related services of Civil Defense. It should be obvious to all of you that even if every doctor in the state of Kentucky could be mobilized in Louisville at the time of an atomic disaster, our ability to render effective service would depend upon the auxiliary services to get the patients to us, and upon whether we had supplies and equipment with which to work. The responsibility for these is not that of the medical profession, but that of the other branches of Civil Defense.

Utilization of Hospitals and Nurses

We must see that all the hospitals in the state are utilized to their fullest ex-

tent, that thousands of extra nurse aids, nurses, technicians, and laboratory workers are trained. We must find thousands of extra hospital beds. It is estimated that fully two-thirds of the casualties or victims of the atomic bomb will live at least 24 hours; one-third of these will probably be lightly wounded and will not require hospitalization; one-third will probably require from one to two weeks' hospital care; the other third will require much longer periods in the hospital.

Blood Bank Program

Moreover, we must help in setting up a realistic blood donor program. Our present setup is totally inadequate to take care of the number of casualties we might have. We would need from 50,000 to 60,000 pints of blood or blood substitutes for the first day, and from 150,000 to 200,000 pints for the entire disaster. It would not be possible to type and cross-match these people individually at the time of catastrophe. Instead, for the first few hours of the day of the tragedy we must depend upon "O" blood; we must collect from those with known type "O" blood, for it has been demonstrated that this can be given in relative safety without cross-matching. The Red Cross Blood Donor Program, independent blood banks, and hospitals should furnish a list of the known type "O" persons. This should be kept at some place away from the disaster area where it would be readily available. Also a plan to use volunteers, especially those trained in one aspect in the collecting and typing of blood, should be studied as an efficient means of collecting and processing blood quickly.

Recommendations For Stockpiling

Recommendations on the stockpiling of supplies should be made. The state should be urged to stockpile enough supplies to take care of the needs of the casualties for the first eight hours.

You ask us, the committee, "What have you done?" Not enough, but at least we have accomplished a few concrete results. We have organized five Mobile Support Units in the state. We have one more in the process of organization. The doctors in Louisville have organized to a point where they had to stop because they were so far ahead of the associated and related services of the Civil Defense that there was no point in continuing until these other services were sufficiently developed.

We have tried to make a survey of our medical resources. We have sent questionnaires to every doctor in the state asking him whether he would serve in Civil Defense, whether he would serve in one of the Mobile Units, and whether his training and the state of his health would be sufficient for him to carry out these duties. Approximately one out of six would serve upon Mobile Support Teams in other sections of the state. We believe if the problem is explained to them, its need, that this percentage can be increased a great deal. We are planning to ask every County Medical Society to form a disaster committee to decide how many doctors it is absolutely essential to keep at home to look after their own medical problems; how many doctors will probably enter the armed services; and how many doctors can be furnished to help some other community that is temporarily overwhelmed by disaster.

Studies of Hospital Facilities

We have asked the hospitals to study their bed capacity, their personnel and their resources so that in case of disaster they would be able to use their beds to the best advantage to take care of the disaster victims. We are asking them to expand their bed capacity two or three times, to evacuate all patients who can be safely sent home in case of disaster in order that we may take care of the critically injured, to have plans for establishing auxiliary hospitals, to train additional aids, technicians, etc. The response to this has been poor. Except for the Louisville area we have very little data upon the rest of

the hospitals in the state. We sincerely hope that the next year will show a marked improvement.

Supplies Necessary

We have taken up the question of supplies with the Civil Defense authorities of the state. We are sorry to tell you that only \$40,000 worth of supplies are stockpiled. Tennessee has appropriated \$1,750,000 for the same task. The state says that it has no appropriation and no available money for any other supplies, that in case of disaster we will just have to commandeer and confiscate supplies from any source or place that we can find them. This method may prove very unsatisfactory. The Committee wishes to point out that unless the state can find some way of supplying the doctor with needed equipment and medical material, we are helpless. We cannot look after the sick and the injured.

We have asked the Governor to see that first aid courses are taught to every high school pupil in the state of Kentucky. This he has promised to do. We urge the training of thousands of nurse aids, many more technicians, and an increasing number of workers in all fields.

Assistance from All Sources Requested

We believe that we can rely upon the state health authorities to take care of the problems of sanitation, epidemics, mass immunizations, and other public health problems. We earnestly ask the full support of every physician, of every county society, and of the state society in solving our problem of Civil Defense.

The Southern Pediatric Seminar, accredited by the American Academy of General Practice, will hold its 33rd annual session in Saluda, North Carolina, devoting two weeks (July 20 to August 1) to pediatrics and one week (August 3 to 8) to obstetrics. The course consists of lectures, clinics, demonstrations, and clinical pathological conference with opportunity for discussions in small groups and a faculty composed of both full-time teachers and physicians in active practice. Physicians who wish to combine the seminar with a mountain vacation may obtain information on housing facilities for their families with further details on the program by writing D. L. Smith, M.D., Registrar, at Saluda.

"A dangerous threat to the national welfare, which must be met," is the way President Eisenhower described the deficits in medical schools' teaching and research programs in the recent opening of industry's and medicine's \$10,000,000 assistance campaign. In a letter to the president of the National Fund for Medical Education, he said "...the financial problems of the medical schools should be solved through private, rather than governmental means. Excessive reliance on government violates the essential principle of our free enterprise system. It falls, then, upon American business to assume a greater share of the responsibility for maintaining the institutions essential to our national health."

SPECIAL ARTICLES

Fees—Doctor-Patient Relationship

ELMER HESS, M. D.

Erie, Pennsylvania

When I was in medical school, no one ever told me how I was to evaluate my services to the public, nor did I get any help in the so-called economic field during my internship. I shall never forget how ashamed and frustrated I felt when, after opening an office for the private practice of medicine, my first patient asked me at the conclusion of the consultation, "How much do I owe you, Doctor?" I had looked at a small benign lesion which was on his lower lip, if I remember correctly, an insignificant dermatitis that didn't even require treatment.

My reply was, "Oh, that's all right. You don't owe me anything for the small service I have rendered." "Well okeh, Doctor, but don't forget you have to eat."

I have often thought of that experience forty-one years ago, and the longer I live and practice medicine, the more I'm convinced that our education in the field of economics has been sadly neglected by those responsible for that education.

A striking example of the total ignorance and lack of intelligent judgment on economics came to my attention recently. A young surgeon who had a distinct financial struggle to finish not only his medical education but also his five years of resident training suddenly found himself practicing. He had already received his Board in Surgery. He had been trained entirely by full-time surgical teachers who never had set a fee in their lives and to whom the economics of private practice was as foreign as their ability to fly. The young surgeon knew that under no circumstances could he do anything but surgery without jeopardizing his Board certification. Therefore, upon this false assumption, he had decided that his services were worth much more than those of the men who had no such certification. He for-

got that the great mass of surgery being done today in the United States was being done by men who were neither Fellows of the American College of Surgeons nor certified by the American Board of Surgery. This mass of surgical work was and is being done by men in general practice with some very splendid surgical experience, and many of these men were better qualified by that experience than were some of the youngsters just out of their training and holding Board certificates. This young man and many others throughout the country, under the same circumstances, quite often are charging fees that at least seem to many people to be exorbitant.

It is difficult to convince some of these younger men, unless they are associated with older practitioners, that they must win their spurs by hard work, heartaches, headaches, and experience. It is difficult for many of them to appreciate that in the eyes of the patient they are just doctors, and few, if any, patients ask the question as to whether or not the physician they consult is certified, qualified, or a member of a select specialty society. Patients, as a rule, select a physician either because they are referred by another physician, a satisfied patient, or because they meet a doctor socially and happen to like him.

It is also surprising how little patients care about the specific training of the individual physician whom they consult. The amazing thing is that very intelligent people often seek the professional advice of cultists rather than that of skilled and trained physicians. It is also difficult to convince the public that the practice of medicine isn't a business. It is equally difficult at times to convince the younger physician of this when he has spent a fortune on his education. If the practice of medicine is a business, it soon deteriorates into a racket. The practice of medicine has always been a profession to the majority of

*From the Urological Department, St. Vincent's Hospital, Erie, Pennsylvania.

Delivered at the Annual County Society Officers Conference, Louisville, March 5, 1953.

those of us who are physicians. This does not mean that there is no definite economic side to it. This simply means that a physician's first duty is the service he is privileged to render to the sick. The fee is or should be always the secondary consideration. Then the practice of medicine primarily becomes a sanctified service to humanity. It is only natural that the services of an experienced man should be economically more valuable than those of inexperienced individuals.

There will always be more or less fixed charges for certain routine medical procedures, but there should be rather wide variations of charges for medical services as a whole, depending on, first, the patient's economic status; and second, the length and severity of the illness, together with all of the various consultations and patient demands. The second should always be based, if we practice a profession, on the number one, or the economic status of the patient or family.

As a result of my years of experience both as a general practitioner of medicine and as a surgical specialist of many years standing, and with frequent conversations with my two younger confreres, we have formulated our own personal professional creed—to wit:

Our first obligation is to alleviate human suffering.

Our second is to save life.

Our third is to tell our professional brethren our experiences in the first two categories so that they may profit from our experience.

Our fourth is to receive an honorarium for our services.

I should like to take these four points and briefly discuss them with you.

Many times a physician is called to see people who are suffering. He recognizes that he probably cannot prolong their lives because of the circumstances which exist, but he **MUST** relieve both their physical and mental pain. This is his first duty. To illustrate this point, I am reminded of a young lady, the daughter of a country physician who had just received her M.D. degree from a Class A medical school. She was on the train traveling home for a visit with her physician father before taking up her internship. The train upon which she was riding struck a man and smashed his leg. He also had severe internal injuries. The conductor made in-

quiries among the passengers for a physician, and our young medico responded and was taken to the baggage car where the desperately injured man was lying. She made the patient as comfortable as she thought she could and held his hand until he died, although it was obvious that the man was in agony. When she arrived home, she was all excitement as she told her father about her first patient. After listening to her recitation, he said, "Why didn't you give him a good shot of morphine and relieve his pain. Didn't you have a hypo and some tablets?"

"Yes," she replied, "but there was no place to sterilize the needle."

"What difference did that make?" asked her practical-minded father. "Suppose the needle was dirty. He was suffering, wasn't he? He was dead in half an hour or so, wasn't he? He would have died 48 hours before the use of a dirty hypo needle would have given him an abscess. Don't forget, young lady, a physician's first job isn't to save life. It's to prevent suffering."

This is splendid advice, and that brings me to the second portion of our creed—the saving of life. This is where experience is the greatest of all the assets of the practicing physician. Often, at the operating table, I am asked: "Why did you do that? It worked." The only reply I can give is "My action was predicated on surgical intuition based on many years experience." Saving life is our second greatest obligation.

The third obligation of the practicing as well as the research physician is to give his confreres the benefit of his experience. This spirit is manifested at the literally thousands of medical society meetings of all kinds and calibres all over our great country every year. Here at these scientific sessions the experiences of thousands of conscientious physicians are freely exchanged and their discussions are published for the benefit of those members of the profession who, for one reason or another, are unable to attend these many meetings. Besides all this, the progressive physician is always attending various postgraduate courses given at the various medical centers throughout the country. These courses are even being brought to the various communities where medical schools and centers are not geographically handy. One older physician told me when I was a young man: "Show me the successful physician in any community and I'll show you

the man who attends medical meetings and medical conventions."

Now then, I should like to discuss the last section of our creed. There are of course, fee schedules for standard medical practices which vary with the community and even with the various practitioners in any given community. These fees have to do with such things as office calls, office examinations, house calls and house examinations, routine laboratory and X-ray examinations, and night calls. These charges or fees are more or less uniform for any given area. The general public know what they are and expect more or less to pay them when seeking these routine services from a physician.

It isn't these routine charges that constitute the high cost of medical care or are the subject of controversy whenever the charge is lodged against the medical profession for heaping exorbitant charges against the public for medical services. It is the cost of so-called catastrophic illness which, for the most part, constitutes the charges for surgical services that is responsible for the so-called hue and cry against the medical profession's excessive fees. In the old days, when most of the work of the surgeon or surgical specialist was done for the people who could not afford any surgical fee at all, the surgeon did, and rightfully so, charge those who could pay on a sliding scale based on the physician's reputation and the economic ability of the patient to pay. The wealthy and near wealthy knew when they consulted Dr. X that he valued his particular services higher than did the less experienced Dr. Y. There was little or no controversy when they received their bills because, as a rule, they were based on a percentage of the annual income of the patient. In those days, as much as 35 to 50 per cent of the work these men did was done for little or nothing.

In my own experience, there was a period of years when I was remunerated by only 20 per cent of the people for whom I rendered surgical services. Today, the situation is very different due to Blue Shield and other voluntary insurance programs. Now, the percentage of people who pay nothing for their services has been very much reduced. In our experience, the present percentage who pay nothing has fallen to about 10 per cent. This means that most of the people who are in the low-income brackets are no longer getting

their services for catastrophic illness free but are paying according to a more or less fixed schedule a reasonable fee for their services. This is income that previous to voluntary insurance programs just didn't exist.

It has always been difficult for me to understand the antagonism to some of these fee schedules, even though great inequities still exist, by some members of the profession. I have known a few men who have constantly stood up and fought these schedules because as they said, as individuals—Quote: "No one is going to tell me what my services are worth." These men ignore the fact that they are now being paid something for many services for which they received absolutely nothing in the past.

It must be admitted that these schedules are not always fair. For example, some schedules pay \$150.00 or \$200.00 for the open removal of the prostate gland and only \$35.00 for the transurethral resection of the prostate. The latter operation is by far the more difficult and requires much more training and experience than the former, and, if anything, the fee should be the same at least. I have recently seen a fee schedule that paid \$75.00 for the first-stage of a suprapubic prostatectomy (the preliminary cystostomy) and \$200.00 for the actual enucleation of the gland. Two-stage prostatectomy has almost disappeared as an operative procedure, but I am sure there will be a revival of this almost obsolete type of surgery because of a fee schedule of this character. The operative fee for a prostatectomy should be the same no matter what the approach. The approach should be selected entirely upon the needs of the patient and not upon the ability of the surgeon just to do one type of operative procedure.

However, in spite of such inequities in the fee schedule, there is no question in our minds that the patient has been benefited by voluntary insurance programs. So has the doctor. In fact, the educators are complaining about the lack of teaching material for their hospitals because the former free patient is now the private patient of the insurance programs. This we believe to be a false presumption because we have a teaching program in our clinic and we have very few of our private patients who object to our interns and residents knowing all about their cases. As a matter of fact, most of these patients, even

though private in every sense of the word, are grateful that some one is always at the hospital who knows all about them in the event of any emergency. It takes a patient sales-talk by the Chief sometimes to accomplish this, but it is more than worth the effort.

We still believe that those patients having a catastrophic illness, who are not in the lower income brackets, should be charged larger fees commensurate with the services rendered. Their economic ability to pay a fair fee for the extra demands they make upon the time and energy of the attending physician and surgeon should also be taken into consideration.

We believe that even the physician is worthy of his hire. We likewise believe that all medical service in any category should be rendered without primary thought on the part of a physician of financial reward whether or not the sick individual is able to pay for part or all of the services rendered. Patient circumstances to us are important when it comes to the fixing and collection of the fee or honorarium to which we may feel entitled. We likewise believe that these considerations for the most part motivate the majority of physicians, and when we hear of the excessive charges made by some of our confreres, we hesitate to criticize them without knowing all of the factors in any given case. Many times people have severely criticized physicians for what they consider excessive fees, and there always will be isolated cases where the surgeon will take an unfair advantage of the patient, but the reverse is also true. I have known this to happen in isolated cases. For example, I know of two instances where patients have gone to outstanding men and have dressed as very poor people and have plead poverty, when, in fact, they were very, very well-to-do. In both cases the busy surgeon has operated and rendered no bill for his services, only later, in both instances, to find out that he had been played for a sucker. Now, I ask you if you had been that physician, what would your attitude have been toward the next case that threw itself upon your mercy? In the above instances the doctor forgot the incident, charged it up to experience and continued to render service to all, regardless. This particular man, however, because of

his business methods couldn't be the financial success he is if the vast majority of the public were not honest. Being honest, the public as a whole is willing to pay a fair fee for a well rendered service. So you see this chiselling works both ways and as most of the public is honest, so are most of the physicians. Let us keep our perspective and not damn any large group for the shortcomings and the dishonesty of a few.

This discussion then brings us to a very important point which I would like to present for your consideration. How can a monetary value be placed on a medical service?

During the first World War when I was an Army surgeon on a full-time, full salary basis, a young man had the internal condyle of his humerus blown away and the brachial artery severed. He would have died in a few moments if I hadn't been on the spot when it happened. Using my thumb for pressure I took a large safety pin, thrust it through the flesh under the vessel, clamped it shut and stopped the hemorrhage until he could be evacuated to a base hospital for more careful treatment. The end result was recovery with a very useful arm. Now what would my services (a few exciting moments of my time) have been worth had this happened to be a civilian relationship?

What is life worth?

What is an arm worth?

Now, let's take another extreme situation. Here is an individual who comes to you and, after hours of hard diagnostic work and many consultations has his cancer of the bladder operated upon. Perhaps he has had either bilateral transplantation of his ureters to the bowel or skin with a total or partial cystectomy. Many other operative procedures and treatments became necessary over the next few years. The patient ultimately dies of his disease after having lived through one operative horror after the other in an attempt to get well. He suffers untold misery and he dies.

What is that service worth?

I think one has to admit that no one can really place a price on the priceless services of a good physician. Therefore, I like to think of the physician's financial reward as an honorarium rather than as a fee.



R. Hayes Barr

R. Haynes Barr

1902 - 1953

Robert Haynes Barr, M. D., president of the Kentucky State Medical Association, passed away at the age of 51, Tuesday, May 5, 1953, in Owensboro, after an illness of five days.

A graduate of the University of Kentucky and of the Medical School of the University of Pennsylvania, Dr. Barr began practice in Owensboro in 1929. From 1940 until 1946 he served in the Army Medical Corps, attaining the rank of colonel and receiving numerous decorations including the Bronze Star with Oak Leaf Clusters, the Legion of Merit, and the French Croix De Guerre. He resumed his practice in Owensboro following World War II.

Dr. Barr, throughout his life, served vigorously in countless activities both professional and civic. In addition to his presidency of the Kentucky State Medical Association, he had served as president of the Owensboro Boy Scout Council, the Owensboro Chamber of Commerce, the Western Kentucky Reserve Officers Association, the Daviess County Medical Society, and numerous other organizations, and as chairman of the Owensboro-Daviess County Board of Health.

Dr. Barr was a leader who sacrificed himself unstintingly in every activity he undertook. No organization owes to him a greater debt than the Kentucky State Medical Association. Because he gave to the needs of the Association so fully of his energy and enthusiasm, it is not inappropriate to say that he died in the service of his profession and fellow man. His passing will leave a great void in the medical profession, his home community, and the Commonwealth of Kentucky.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Spafford Ackerly, M. D.

George G. Greene, M. D.

T. O. Meredith, M. D.

Rufus C. Alley, M. D.

R. Arnold Griswold, M. D.

William R. Miner, M. D.

Everett H. Baker, M. D.

William P. Hall, M. D.

Frank H. Moore, M. D.

Sam H. Black, M. D.

O. Leon Higdon, M. D.

James E. Moore, M. D.

James W. Bruce, M. D.

Emmet F. Horine, M. D.

George W. Pedigo, Jr., M. D.

John L. Dixon, M. D.

E. W. Jackson, M. D.

Alvin C. Poweleit, M. D.

Samuel H. Flowers, M. D.

William O. Johnson, M. D.

Winston U. Rutledge, M. D.

Carl H. Fortune, M. D.

James M. Keeton, M. D.

William L. Woolfolk, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

R. Haynes Barr, 2014 Frederica Street, Owensboro	President
J. Duffy Hancock, 704 Brown Building, Louisville.....	President-Elect
Charles B. Johnson, Russell.....	Vice-President
W. O. Johnson, 605 Brown Building, Louisville.....	Vice-President
G. Y. Graves, Bowling Green.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District	J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah..... 1953
Second District	Walter L. O'Nan, 237 Second St., Henderson..... 1953
Third District	Delmas M. Clardy, Hopkinsville..... 1953
Fourth District	J. I. Greenwell, New Haven..... 1953
Fifth District	Richard R. Slucher, Buechel..... 1954
Sixth District	L. O. Toomey, Bowling Green..... 1954
Seventh District	Branham B. Baughman, Frankfort..... 1953
Eighth District	Edward B. Mersch, 92 Arcadia, Covington..... 1954
Ninth District	J. R. Cummings, Flemingsburg..... 1953
Tenth District	J. Farra Van Meter, 183 N. Upper Street, Lexington..... 1955
Eleventh District	Hugh Mahaffey, Richmond..... 1953
Twelfth District	Carl Norfleet, Somersett..... 1953
Thirteenth District	Clyde C. Sparks, Mayo Arcade, Ashland, Chairman..... 1953
Fourteenth District	Paul B. Hall, Paintsville..... 1953
Fifteenth District	Edward Wilson, Pineville..... 1954

EDITORIALS

THE WORLD MEDICAL ASSOCIATION AND AESOP

Why should American physicians support the World Medical Association?

Old Aesop compressed it into six words when he said: "United we stand; divided we fall."

It is redundant to dwell on the numerous ways in which modern science of transportation and communication have equally compressed the globe since Aesop first made his observation. It is important, however, to recognize that every phase of life is now the object of international organizations, both good and bad. The American physician can rest assured that among these the World Medical Association is highly deserving of his support.

Dr. Louis H. Bauer, president of the American Medical Association and secretary-general of the World Medical Association, expresses it well when he urges physician support of W.M.A., stating:

"First of all, an increasing number of problems relating to health and medicine are being discussed and decided on the international level. Most of the bodies discussing these problems have one viewpoint only, and that is the viewpoint of government. Without the World Medical Association there is no one to present the opinions of practicing physicians.

"Another great contribution to the welfare of medicine . . . is the sponsorship of the First World Conference on Medical Education. . . . Medical education is long overdue for a reassessment. This conference will give the practicing physician

an opportunity to state how medical education has met or failed his needs.

"In addition to this, the W.M.A.'s studies in the field of the medical aspects of social security, standards of hospitals, the development of an international code of medical ethics, its stand with reference to an international pharmacopeia, and its continuing fight to protect the rights and privileges of doctors in both peace and war are further examples of its importance.

"Most important of all, however, is the ability of the World Medical Association to speak for practicing physicians. Too often the profession is ignored in deciding matters of moment to both the profession and the public.

"Six years of experience with doctors of other nations has shown me conclusively that the same problems face the profession in all countries. They differ only in degree. That, perhaps, is not surprising. What is surprising is that doctors all over the world think alike about these problems, differing only as to details."

Many international organizations, some misguided, some malicious, are apparently committed to the enslavement of the medical profession and the public which it serves. We have an obligation to ourselves and our people to defend our own heritage with instruments that are effective in the same areas. We have a responsibility to those in other lands to help them attain similar freedoms to which they have so far unsuccessfully aspired. Not the least of these instruments open to the physician is the World Medical Association.

SHOULD PATIENTS BE TOLD?

"A doctor faces a difficult problem when he discovers cancer in one of his patients. Should he tell the patient? Or should he try to make the patient believe that no cancer exists?"

The foregoing are the opening lines in a questionnaire sent to 1,000 laymen by Otis R. Bowen, M. D., of Bremen, Indiana, in an effort by him to learn how the patient or patient's relatives and friends

really feel about what they should be told when cancer is discovered. The results of Dr. Bowen's survey, based on 477 replies, was published in the April issue of The Journal of the Indiana State Medical Association.

Because it should be of interest to all physicians, the general conclusions reached by Dr. Bowen are worthy of reproduction.

(Continued on page 273)

ORGANIZATION SECTION

Dr. Covalt to Be Featured on '53 Annual Meeting Program



Dr. Covalt

Donald A. Covalt, M. D., clinical director of the New York University-Bellevue Medical Center, Institute of Physical Medicine and Rehabilitation, will be a guest essayist at the 1953 Annual Meeting of the Kentucky State Medical Association, Thursday, September 24.

"Dr. Covalt is another of an outstanding group of nationally recognized speakers who will take part in the scientific program of the 1953 session," R. Haynes Barr, M.D., chairman of the Committee on Scientific Assembly, said a few days before his passing. His subject will be "Hemiplegias."

Following his graduation from the University of Indiana Medical School in 1933 and his hospital training, Dr. Covalt settled in Muncie, Indiana, where he engaged in private practice until 1942. At that time he entered a tour of duty with the Air Force and in 1948 located in New York City.

"Dr. Covalt, an associate of Howard Rusk, M.D., of New York, has long been interested in physical medicine and rehabilitation. In addition to being director of the institute of the New York-Bellevue Hospital Center, he is also associate professor of the New York University College of Medicine and visiting physician in physical medicine at the Third Division Bellevue Hospital and the University Hospital. We are most fortunate to have this eminent authority with us this fall," Dr. Barr said.

Other leading guest essayists to appear on the program this fall are George T. Harrell, M.D., of Bowman Gray School of Medicine, Winston-Salem, North Carolina; Harold E. Harris, M.D., of the Cleveland Clinic, Cleveland, Ohio; Paul Holinger, M.D., of Chicago; Colonel William H. Amspacher, director of Surgical Research Unit, Brooks General Hospital, Ft. Sam Houston, Texas; and H. Close Hessektine, M.D., of the University of Chicago.

The Journal will carry a complete copy of the scientific program in the July issue.

Barr Memorial Library Receives \$210 From Harlan Society

The Harlan County Medical Society has raised \$210 for the R. Haynes Barr Memorial Library at the new Owensboro-Daviess County Health Center, Philip J. Begley, M. D., secretary of the society has announced.

As plans for the funeral of the late R. Haynes Barr, president of the Kentucky State Medical Association, were made known, the family requested that friends of Dr. Barr who planned to send flowers make a contribution instead to the newly established memorial.

Dr. Begley stated that the Harlan County Medical Society hopes that other county groups will make contributions to this very worthy memorial.

Thirteenth District Programs Draw Over 60 at Ashland

More than 35 physicians attended an afternoon and evening meeting of the Thirteenth Councilor District at the Henry Clay Hotel in Ashland May 12; in addition approximately 25 doctors' wives attended the dinner held in conjunction with the meeting, according to Clyde C. Sparks, M.D., Ashland, councilor.

The scientific portion of the program consisted of two parts. A symposium on peptic ulcer included papers on "Medical Management," by Philip Carter, M.D. and Forest F. Shely, M.D. of Louisa; "Surgical Intervention," by M. D. Garred, M.D., Ashland; "X-Ray Diagnosis," by Leslie D. Urban, M.D. and Albert L. Allen, M.D., of Ashland; and "Pathological and Laboratory Aspects," by B. B. Holt, M.D., Ashland. Wendell V. Lyon, M.D., Ashland, presented a "Review of the Recent Epidemic of Influenza with Particular Reference to Complications and Their Management."

The meeting was presided over by Sylvester G. Hunter, M.D., president of the Boyd County Medical Society, which acted as host. Joe Sanford, executive secretary of the Kentucky State Medical Association, substituting on the program for the late R. Haynes Barr, M.D., spoke on "The Functions of the K.S.M.A. Office."



—Louisville Courier-Journal

A television camera (whose tripod can be seen on platform to left) is trained on tableau at right and transmits to the public a cancer operation April 22, at Louisville General Hospital—a historic “first” for the television medium. To the rear stands a surgeon who described the operation for the TV audience as he too follows it on a screen.

Laymen See Their First Telecast of Cancer Surgery

The first cancer operation ever televised for the general public was performed at Louisville General Hospital, Wednesday evening, April 22.

Members of the Kentucky State Medical Association participated in the operation and the program which was sponsored by the Kentucky Division of the American Cancer Society, the University of Louisville School of Medicine, and Radio Station WHAS-TV as an educational project of the 1953 cancer drive.

In an hour-long live telecast, high points in the nearly three-hour operation on the right lung of a suspected cancer victim were shown the television audience. A surgeon was narrator. Viewers saw not only the biopsy and subsequent removal of the organ but laboratory and studio flashbacks in which members of the hospital staff were interviewed.

Later, a physician officer of the cancer society answered all that time would permit of the largest number of questions ever received by the station on its weekly “What’s Your Question?” program.

Dr. Hancock Receives Cancer Award

The Gold Medal Award of the American Cancer Society was presented to J. Duffy Hancock, M.D., Louisville, president-elect of the Kentucky State Medical Association on April 22, for his years of distinguished service on behalf of cancer control by F. Guy Aud, M.D., member of the board of directors and past president of the national organization.

Dr. Hancock was the first president of the Kentucky division’s board of directors from 1936 to 1940 and re-elected in 1950, served again through November, 1952. The presentation was televised from station WHAS-TV, Louisville.

Medical Education Special Article Planned For July Journal

A special article on medical education in Kentucky, which is being prepared by a special committee authorized for that purpose by the K.S.M.A. Council, is expected to be ready for publication in the July issue of the Journal according to an announcement by C. C. Howard, M.D., Glasgow, chairman of the committee.

Members of the committee, in addition to Dr. Howard, are Joseph C. Bell, M.D., Louisville; John S. Chambers, M.D., Lexington; Francis M. Massie, M.D., Lexington; Carlisle Morse, M.D., Louisville, and Richard J. Rust, M.D., Newport.

The committee is acting on instructions from the Council to prepare the article setting forth contrasting views of the medical profession on medical education in Kentucky. It was appointed following the April 23 meeting of the Council.

Dr. Chumley Accepts Journal Post as Associate Editor



Dr. Chumley

Jack Chumley, M.D., Louisville practitioner of internal medicine, was appointed associate editor in charge of scientific content of the Journal of the Kentucky State Medical Association and assumed his duties May 1, it was announced by Bruce Underwood, M.D., Louisville, editor.

A native of Houston, Texas, he came to Louisville in 1914 and was educated here. Attending the University of Louisville, he earned both bachelor of science and master degrees before entering the School of Medicine, from which he graduated in 1937. His internship and residency in internal medicine were both served at Louisville General Hospital.

In 1941 he entered the Army Medical Corps, serving in this country and in Europe with the 42nd Division. He entered the private practice of medicine at Louisville in 1945 after his discharge from the service.

Dr. Chumley is clinical director of the Waverly Hills Chest Clinic at Waverly Hills, Kentucky. He is a member of the Jefferson County Medical Society, the Kentucky State Medical Association, and the American Medical Association.

Over 200 Attend Fayette County Annual Dinner Program

The annual dinner meeting of the Fayette County Medical Society, held May 14 at the Lexington Country Club, attracted an attendance of approximately 225 persons.

Rudolph J. Noer, M. D., professor of surgery,

University of Louisville School of Medicine, and Clyde C. Sparks, M. D., Ashland. Chairman of the K.S.M.A. Council, were the guest speakers. Dr. Noer spoke on "Intestinal Obstruction." Dr. Sparks discussed the public service aspects of medicine's future in a talk entitled, "Don't Die on Third."

Many out-of-town guests attended the Fayette meeting, which was presided over by Coleman C. Johnston, M. D., Lexington, president of the Fayette County Medical Society. Other officers of the society are N. L. Bosworth, M.D., vice-president, and John B. Floyd, Jr., M. D., secretary-treasurer, both also of Lexington.

Program of Ninth District in May Presents Four Essayists

The Ninth Councilor District of the Kentucky State Medical Association met in an afternoon and evening session at the Stoner Creek Country Club, Paris, May 13, with an attendance of approximately 30 persons, according to John R. Cummins, M. D., Maysville, councilor.

The scientific program for the meeting, which was presided over by B. N. Pittinger, M. D., Paris, president of the host Bourbon County Medical Society, included the following papers: "Peripheral Vascular Disease," by John B. Floyd, Jr., M. D., Lexington; "Dangers of Anesthesia," by Lewis Francis, M. D., Lexington; "Radiology," by Jesse W. Smith, M. D., Paris, and "Pediatric Emergencies," by Harry Shirkey, M. D., Children's Hospital, Cincinnati, Ohio.

Clyde C. Sparks, M. D., Chairman of the K.S.M.A. Council, addressed the meeting following dinner on the subject, "K.S.M.A. in Action."

Jean Clos Named to New Sec'y Post By Jefferson County Society

Jean Clos, news editor and commentator for radio station WKLO, Louisville, took office May 1, as executive secretary of the Jefferson County Medical Society.

Provision for a full-time lay secretary was made at the annual meeting last January when the society voted a raise in dues to broaden the society's service and administrative activities.

Mr. Clos, 42, a native New Yorker who attended Harvard University, formerly worked for the New York Daily News, the Watertown Times, and station WWNY at Watertown, New York. He came to Louisville in 1943 as production manager for station WHAS and in 1947 be-

came general manager of WLEX, Lexington. He joined WKLO in 1948.

Mr. Clos has given active service and leadership to numerous civic organizations since he came to the state.

Kentucky General Practitioners Hold Annual Meeting in Louisville

The Kentucky Academy of General Practice held its annual meeting in Louisville April 22 and 23. Approximately 100 persons were in attendance.

Keith P. Smith, M.D., Corbin, was installed as president, succeeding Joe M. Bush, M. D., Mount Sterling. Garnett J. Sweeney, M.D., Liberty, was named president-elect. D. G. Miller, Jr., M.D., Morgantown, was re-elected secretary-treasurer and B. Ralph Wilson, M.D., Sharpsburg, vice-president.

C. V. Hiestand, M.D., Campbellsville, was recipient of the E. M. Howard award, presented to the physician declared to be the "outstanding member of the Academy for the year." Dr. Hiestand, 81 years of age, is actively engaged in medical practice in his home community where he has been a civic leader for over 45 years. Interested in politics throughout his life, he is now serving as mayor of Campbellsville.

Dean Moore Chair Drive Moves Ahead

Solicitation of subscriptions for the new Chair of Medicine endowment at the University of Louisville has had encouraging results, with former residents—those most closely associated with the late Dean John Walker Moore, for whom the chair will be named—among the first and most liberal to respond, it was announced by Sam A. Overstreet, M.D., chairman of the campaign committee for the endowment.

"This is an enterprise in which every well-meaning forward-looking physician will want to participate," said Dr. Overstreet. Other members of the committee are J. Murray Kinsman, M.D., dean of the School of Medicine, and Spafford Ackerly, M.D., Louisville, faculty member.

Hold 6th Councilor District Spring Meeting in Bowling Green

Forty-two physicians attended the meeting of the Sixth Councilor District of the Kentucky State Medical Association at the Helm Hotel, Bowling Green, the night of April 28. The Warren-Edmonson County Medical Society acted as host for the dinner meeting.

The final 1953 telephone seminar sponsored by K.S.M.A. and the University of Louisville on "Ophthalmology in General Practice" served as the scientific program. The meeting was called by L. O. Toomey, M.D., Bowling Green, Sixth District Councilor, and was presided over by Carter Moore, M.D., Franklin, president.

A business meeting in which various aspects of medical and nursing care in the area were discussed followed the seminar. Other officers of the district organization are Jesse Funk, M.D., Bowling Green, vice-president, and Richard Grise, M.D., Bowling Green, secretary.

Kentucky Medical School Facilities Discussed at Special Meeting

A meeting devoted to consideration of certain aspects of medical school facilities in Kentucky was held Thursday, April 23, in the Kentucky Hotel. Representatives of the Fayette County Medical Society and members of the Council of the Kentucky State Medical Association were guests of the Jefferson County Medical Society for dinner prior to the discussion.

The relationship of the medical service needs of Kentucky to the University of Louisville Medical School and a possible medical school at the University of Kentucky were discussed by a number of members representing each society and by R. Haynes Barr, M.D., late president of K.S.M.A.

Approximately 100 persons were present at the meeting.

Student AMA May Draw Over 1,000

A delegation of four students headed by official delegate John Huff, also new chapter president, from the University of Louisville School of Medicine will be among the more than 1,000 registrants anticipated at the third annual convention of the Student American Medical Association at Chicago's Edgewater Beach Hotel, June 15 to 17.

Program features in addition to the regular business sessions include panels of top authorities on the doctor draft, general practice, and the conduct of S.A.M.A. chapters, as well as the premiere of a film "The New Physician," which depicts the life of a student and intern in rural Mexico. An address by a government representative will close the meeting. Luncheon meetings, tours, and social activities round out the program.

US Students Send McGaff to AMA



Dr. McGaff

Charles McGaff, senior student at the University of Louisville School of Medicine and former president of the University's chapter of the Student American Medical Association, has been appointed one of the nation's two medical students who will represent the national body of the S.A.M.A. at the annual

meeting of the American Medical Association at New York in June, it was announced by A.M.A. headquarters.

Mr. McGaff, who is a member of the eight-man executive committee of the S.A.M.A., will also attend the annual meeting of the student organization at Chicago in June. Official delegate of the local chapter to this convention is John Huff, junior student and newly elected chapter president.

Dr. Higdon Named Consultant

O. Leon Higdon, M.D., Paducah, was appointed to the Board of Consultants on Scientific Articles at a meeting of the Advisory Committee to the Editor in consultation with the editor, it was announced by F. Guy Aud, M.D., Louisville, chairman.

Dr. Higdon will fill the vacancy created by the death last February of Coleman J. McDewitt, M.D., Murray. There are 24 members on the Board.

World Medical Association Pushes Drive For Members

The World Medical Association is conducting a drive for greater membership to further its avowed purpose of assisting the world population attain the highest level of health.

In the past four years the association has conducted surveys of medical man-power, medical education, and social security on an international basis. Currently, it is investigating cults, medical advertising, hospitals, availability of biologicals, and the incidence of cancer in various areas. A quarterly bulletin is being published, a modified Hippocratic oath has been adopted, an international code of medical ethics has been formulated and a secretariat set up in New York.

Membership in WMA is distributed over 43 countries. Physicians may obtain further particulars by writing the association at 2 East 103rd Street, New York City 29.

Appoints Movies Committee

Sydney E. Johnson, M.D., Louisville, chairman, and other appointees to a committee to provide scientific movies for the 1953 annual sessions have been named by J. Duffy Hancock, M.D., Louisville, president-elect and chairman of the Committee on Arrangements.

The others appointed are James C. Drye, M.D., Harold Gordon, M.D., Arnold Griswold, M.D., and Jesshill Love, M.D., all of Louisville.

Service Plaque to Dr. Keller

Billy K. Keller, M. D., professor of psychiatry and associate in community health at the University of Louisville School of Medicine, was honored at Louisville, March 31, by the award of an inscribed plaque from the Kentucky Association for Mental Health for exceptional contributions in the field of mental health.

Recognition was made at a dinner of the association in the Seelbach Hotel. About 280 persons heard Dr. Keller cited for promoting the cause of mental health both "in season and out of season."

Tynes Joins Blue Cross Commission

D. Lane Tynes, executive director, Blue Cross Hospital Plan, Inc., Louisville, became a member of the Blue Cross Commission of the American Hospital Association at a meeting of the Commission April 16 in Hollywood, Florida, during the annual conference of Blue Cross Plans. James E. Stuart, executive director, Hospital Care Corporation, Cincinnati, was re-elected president of the Commission.

KSMA Men Win Urological Award

A. M. Isaacs, M. D., Harold F. Berg, M. D., and William Christophersen, M. D., Louisville, recently won a \$150 cash award for a paper which was presented at the Southeastern Section meeting of the American Urological Association in March at Havana, it was announced by Sidney Smith, M. D., Raleigh, North Carolina, section secretary.

The award is made annually for "the outstanding piece of original research" presented before this meeting, and selection is made by a committee of judges. The winning paper was

entitled "The Localization of Radiogold in the Regional Lymph Nodes after Injection into the Urinary Bladder." The experiment, made on dogs, demonstrated for the first time that the radioisotope of gold can be carried from the original site of injection to the regional lymph nodes. The paper was presented by Dr. Isaacs.

Stamps May Honor Medical Leaders

Distinguished figures in the history of American medicine are being considered by postal authorities as subject for a new series of commemoratives, it was reported by the Washington Star.

Brig. Gen. Elbert De Coursey, native of Ludlow, Kentucky, and director of the Armed Forces Institute of Pathology, on request has submitted a list of names. The series would honor such men as William Beaumont, John Shaw Billings, Joseph Goldberger, the elder Oliver Wendell Holmes, William Osler, and George Miller Sternberg.

Ob-Gyn Men Elect Dr. Leon Higdon

O. Leon Higdon, M.D., Paducah, was elected president of the Kentucky Obstetrical and Gynecological Society at Louisville, April 25, having served as acting president since the death last February of C. J. McDevitt, M.D., of Murray, former president.

Other officers elected were J. B. Marshall, M.D., Louisville, vice-president; George M. McClure, M.D., Danville, secretary-treasurer; and Joseph H. Liebman, M.D., Frankfort, new executive committeeman. Resolutions were adopted in tribute to the late Coleman McDevitt. The society voted to meet next year at Frankfort.

Announces Faculty Appointments

The following appointments were made recently on the faculty of the University of Louisville School of Medicine, according to an announcement from the dean's office.

Lecturer with rank of Associate Professor of Neurology, Department of Medicine: Robert E. Bruner, M.D., (Northwestern University Medical School, 1937);

Assistant Professors of Neurology, Department of Medicine: Irving O. Dean, M.D., (University of Louisville School of Medicine, 1940), Lewis L. Levy, M.D., (Temple University School of Medicine, 1946), and Richard P. Schmidt,

M.D., (University of Louisville School of Medicine, 1945);

Assistant Professor of Physiology: James C. Moore, M.D., (University of Louisville School of Medicine, 1946.)

Pediatricians Elect Dr. Palmer

Lee Palmer, M.D., Louisville, was elected president, John E. Bickel, M.D., Owensboro, vice-president, and Cathryn C. Handelman, M.D., Louisville, re-elected secretary of the Kentucky Society for the Advancement of Pediatrics at its annual meeting at Louisville, April 24.

Pediatrics residents of local hospitals attended all sessions as guests of the society, and members of the Louisville Obstetrical and Gynecological Society were special guests at a lecture by Edith Potter, M.D., Department of Obstetrics and Gynecology, University of Chicago.

The society will meet in Louisville again next year.

McDowell House Open to Tourists

The Doctor Ephraim McDowell Memorial at Danville, property of the Kentucky State Medical Association, was reopened to the public on May 1, and will remain open daily from 9 a. m. to 4 p. m. and on Sundays from 2 to 5 p. m. during the tourist season.

Some old medical books have been donated since last year and additions made to the garden, according to members of the K.S.M.A. Auxiliary. Physicians have been asked to invite visitors to the McDowell House during this season.

New KSMA Members Welcomed

Daviess—Nathan Cantor, Guy Morford, Owensboro.

Fayette—Lewis Francis, Lexington.

Floyd—Fred M. Gross, Jr., Martin.

Grayson—James F. Bigalow, Leitchfield.

Hart—Samuel A. Rector, Munfordville.

Jefferson—Maurice A. Perellis, Edward A. Rose, Harvey R. St. Clair, Louisville.

Lee—Mary N. Smith, Beattyville.

McCracken—Harry D. Abell, Jr., William B. Haley, Charles W. Harting, Walter R. Johnson, Jr., Harold D. Priddle, Edwin L. Webb, Paducah; E. E. Ramey, Jr., Wickliffe; M. W. Blankenship, Calvert City.

Madison—Margaret Smythe, Berea.
Ohio—Horace B. Pendleton, Hartford.
Pike—William H. Chappell, Majestic.
Russell—Joe T. Pettey, Russell Springs.
Union—William W. Martin, Sturgis.

Pertinent Paragraphs

Although A.M.A. membership dues are rolling in at a much faster rate than in 1952, there are five states which have sent none and 12 that have forwarded less than one per cent, according to an A.M.A. Secretary's Letter. With the headquarters office equipped to mail about 10,000 membership cards a week, there is a lag of ten days to two weeks. Unless the delinquent states remit promptly, difficulties may arise in seating these delegates at the June convention. Total membership as of December 31, 1952, was, in round figures, 140,000. Of this figure, 126,000 are active members, 9,000 service, and 5,000 associate.

A proposal to clarify the law on hospitalization of non-service-connected cases, submitted to the Congress April 15 as H.R. 4601, would make the Veterans Administrator the judge of the veteran's ability to pay rather than the veteran as the present law provides in admission of cases on this basis. The new bill would also give the Administrator authority to collect from veterans a part of the cost and give admission preference to those in need of extensive hospital treatment for long-term ailments and unable to earn a living for an indefinite period.

Only six out of 12,527 physicians inducted in the three military services since start of the Korean war were denied commissions on loyalty grounds, according to a compilation by the Army Surgeon General's office. The tabulation shows that out of 24 drafted as privates during the period, 18 were commissioned after induction. Some of the 18 had waited too long to apply for a commission, and some were misinformed of the facts in their particular cases.

A total of 150 June medical school graduates were selected for the army's medical intern program, according to an A.M.A. Washington Letter, and will be assigned to one of 11 teaching hospitals. They will serve as first lieutenants in the Reserve.

American medical schools need an average of \$250,000 more each year in order to do a first-rate job, according to Ward Dailey, M. D., president of the Association of American Medical Colleges, in *The Journal of Medical Education*. The financial crisis arose from the 500 per cent increase in operating costs of the schools over the past 30 years. The nation's changing economy is also a contributing factor, Dr. Dailey stated. Endowment interest, which supplied 35 per cent of the schools' income in 1941 dropped to 20 per cent despite a 21 per cent increase in endowment capital.

An indoctrination program for new members was recently inaugurated by the Indiana State Medical Society with four sponsors for each newcomer. One of the four serves as "personal sponsor" for a year, counseling when asked on ethics, setting up and conducting a practice, policies, etc. The society entertains each group of applicants as it is formed at a welcoming dinner.

Thirty eight motion pictures have been cleared for television use since publication of the original list in 1951 by the committee on medical motion pictures of the American Medical Association, and copies of the supplementary list are now obtainable by writing to the committee.

Today's Health, A.M.A. publication, recently won two awards for "excellence of design" in the annual show of the Society of Typographic Artists at the Art Institute, Chicago. Last fall the magazine won an award at an exhibit of the Art Directors Club of Chicago, and in 1951 it won two awards in the big national New York show sponsored by the American Institute of Graphic Arts.

News Items

M. W. Blankenship, M.D., recently opened offices in Calvert City for the general practice of medicine. Dr. Blankenship formerly practiced at the West McCracken Clinic, where he came from an industrial medical practice assignment in Eastern Kentucky. With the army medical corps during World War II, he saw active duty in the Pacific. He completed his internship at Memphis hospital after graduation from the University of Tennessee College of Medicine in 1951.

Rudy J. Ellis, M.D., recently became an associate of **Harry Goldberg, M.D.**, Louisville, in the practice of orthopedic surgery and fractures. Dr. Ellis entered private practice from service with the Veterans Administration. His internship was served at Louisville General Hospital after graduation in 1943 from the University of Louisville School of Medicine. He then entered the army.

J. B. Lyen, M.D., Lawrenceburg, 1894 graduate of the Louisville Hospital College of Medicine, recently enjoyed a surprise reunion at Lakeland, Florida, with a classmate, **Charles Lincoln, M.D.**, of Brunswick, Maine. They met

for the first time in 59 years after Dr. Lyen saw a picture of Dr. Lincoln, retired missionary, in a newspaper. Dr. Lyen has practiced in Anderson County since 1896. A third and only other living classmate is **Frank Lapsley, M.D.**, Shelbyville.

Maurice A. Perellis, M.D., Louisville, recently entered the private practice of pediatrics after a two-year army tour of duty. Graduating in 1946 from the University of Louisville School of Medicine, he interned at Sinai Hospital, Baltimore, and did postgraduate work in clinical pediatrics at the Cook County Postgraduate School of Medicine, Chicago. Before entering the army, he served a residency at Children's Hospital and Louisville General Hospital in Pediatrics.

E. V. Seay, M.D., 81, of Salvisa, was recently recognized by the Harrodsburg Herald for his 60 years of service in the practice of medicine to the people of his community. Graduating from the University of Louisville Medical Department in 1893, he began his practice in Anderson County, and in 1905 opened an office in Salvisa where he is still active.

SHOULD PATIENTS BE TOLD?

(Continued from page 263)

tion here. "Since the survey," he says, "my opinion has changed only insofar as insisting that the patient be told but that plenty of time be taken to explain why the patient should be informed."

The survey showed that 96.6 per cent of all persons, regardless of sex, age, occupation, or religion, desire to know whether they have cancer. In response to the question "If your doctor discovered your wife, husband, father, mother, or other close relative had cancer, would you like for them to be told?," 88.6 per cent said "Yes." Expressing themselves as to whose responsibility it is to inform the patient that he has cancer, 88.8 per cent felt the doctor alone should, 5.4 per cent thought the doctor in company with a third party should.

While Dr. Bowen's survey was concerned exclusively with the layman's view on whether he should be told in cases of cancer, its lessons may well be applicable

in other situations.

Dr. Bowen said "It has been my experience that a patient who understands his problem will co-operate much better in any type of treatment and will feel much more relaxed towards his situation. If the eventual outlook is hopeless, he will have ample time to get his numerous legal items such as property, insurance, bills, etc., in order while he is still physically and mentally fit to think carefully and adequately for the care of those whom he may leave behind. It gives the patient a chance for more intense religious preparation, and this certainly is a great help to the physician in handling the problem.

"It should not be overlooked that if cancer has been cured by adequate treatment, or if the results have been excellent even towards lengthening of life and making life more comfortable, then the physician's relationship with the patient, his family, and friends, has not been strained; and the medical profession's public relations with the laity has been greatly improved."

County Society Reports

JEFFERSON

The Jefferson County Medical Society met Monday evening, February 16, 1953, at the Seelbach Hotel, Louisville. Forty-six members were present for dinner. Dr. Houston W. Shaw presided in the absence of Dr. Hurst, president.

The following new members were elected:

Adam Reischer, M. D., active membership; Jerry M. Cox, D.D.S., Richard M. Herd, D.D.S., and Arthur Welsh, D.D.S., associate membership.

Dr. Carroll Witten proposed an amendment to the By-Laws under Chapter 1, Article D of the Constitution as follows:

"Any physician who as an active member of this society shall fail to attend four regular meetings during the year or submit an acceptable excuse to the Executive Committee, shall be deprived of membership in this society for twelve months."

The motion was seconded. After a discussion the motion was ruled out of order since the by-laws provide that all amendments must be held over a month before voting. It was suggested that Dr. Witten present his amendment in writing to the Secretary for referral to the proper committee.

A motion was made that a committee be appointed to consider a new meeting place removed from the downtown section and without a parking problem. The motion was withdrawn and held for proper referral to the Executive Committee.

A scientific program was presented by Dr. Houston W. Shaw and Dr. Robert C. Tate on "Cholelithiasis." There was a discussion by Dr. Robert H. Akers.

John S. Llewellyn, M.D., Secretary

LETCHER

The Letcher County Medical and Dental Society met April 28, 1953, at the office of Dr. R. Dow Collins, in the Health Department at Whitesburg. The meeting was called to order by President B. C. Bach.

Those members present were Doctors Bert C. Bach, R. Dow Collins, Carl Pigman, and Owen Pigman.

After preliminaries, which included the reading of an editorial from the April Journal of the Kentucky State Medical Association on

participation of the general practitioners in Blue Shield benefits, a paper and talk was given by Dr. Collins on "Immunization."

Owen Pigman, M. D., Secretary

McCRACKEN

The McCracken County Medical Society met on Wednesday, April 22, 1953, for a dinner meeting at the Ritz Hotel. The meeting was called to order by Dr. George H. Widener.

The scientific program was conducted by Dr. Grayson Carroll of St. Louis, who discussed urinary tract infections. Questions followed the discussion.

A letter was read to the society concerning the institution of a medical forum. It was referred to the Public Relations Committee for further consideration.

Doctors R. W. Robertson, J. E. Dunn, and Errett Pace were appointed as a committee to select candidates for the distinguished service and the outstanding general practitioner awards to be presented by the Kentucky State Medical Association at its annual meeting in September.

Dr. Logan Weaver discussed the epidemic of infectious hepatitis and announced that immune globulin was available for families of cases of infectious hepatitis.

M. W. Fowler, M. D., Secretary.

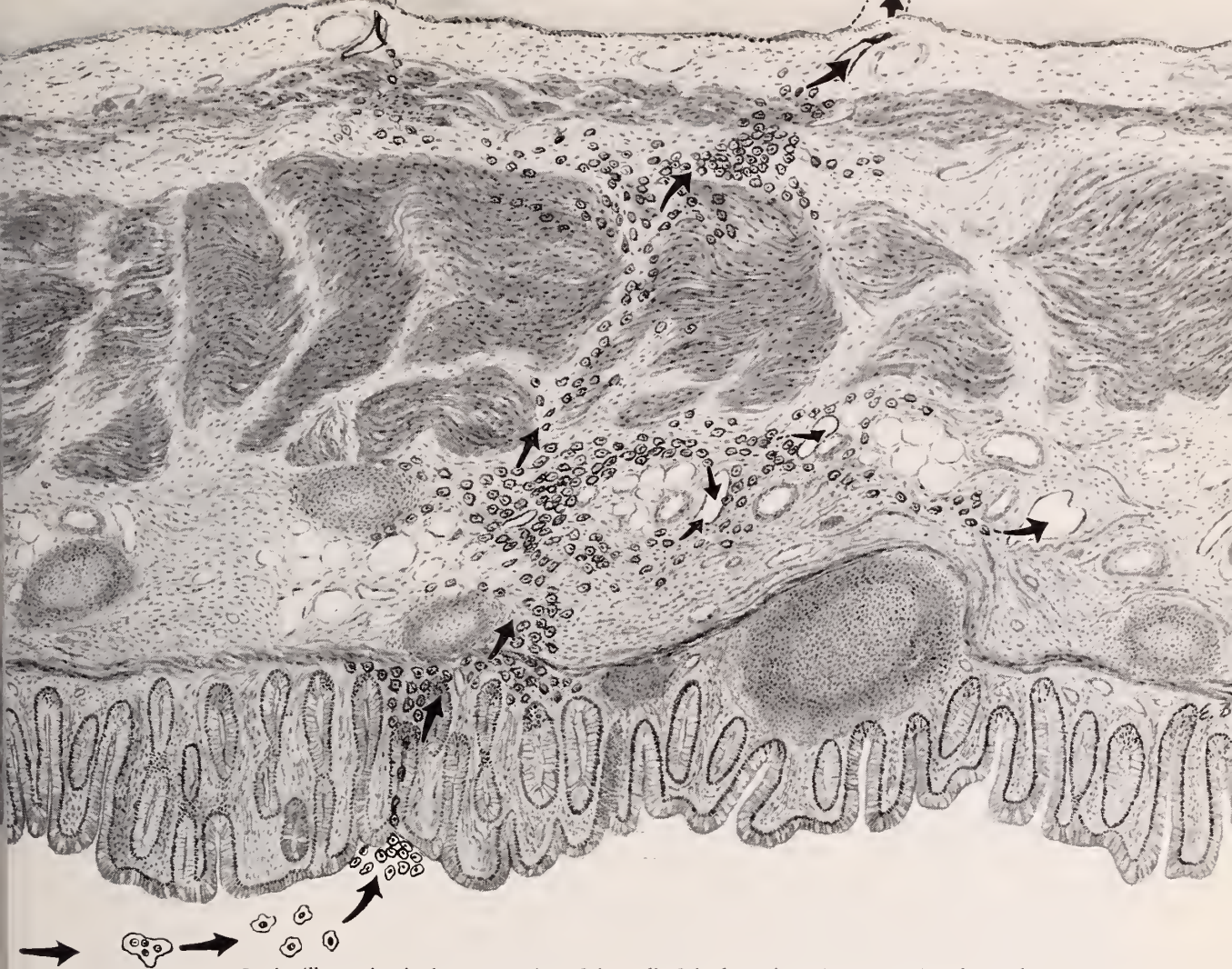
UNION

The Union County Medico-Dental Society met on Tuesday night, April 21, 1953, at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M. D., president.

The Secretary read a communication from the Kentucky State Medical Association regarding awards to be presented at the annual meeting in September, one a distinguished service medal, the other for the outstanding general practitioner. Nominations may come from the society as a whole or from individual members.

W. W. Martin, M. D., was accepted as a member of the society.

Guest speaker for the evening was Walter O'Nan, M. D., Henderson, councilor of the Second District of K.S.M.A. He spoke of various services which the state organization offers its members, emphasizing the advantages realized by those who attend the annual County Society



In the illustration is shown a section of the wall of the large intestine suggesting the mode of invasion of *Endamoeba histolytica* into the various levels; the mesenteric venules lead to the liver and escape of some of the parasites may cause an amebic abscess of the liver.

Diodoquin® in Amebiasis

*"Diodoquin is very effective in curing the intestinal infection..."**

In a recent survey of seven commonly-used amebicides, Weingarten* concluded that Diodoquin (diiodohydroxyquinoline, U.S.P.) gave an excellent percentage of cures with maximal safety for the patient.

The active protozoacidal agent in Diodoquin is iodine, present in the high percentage of 63.9.

As a result of this high iodine content, Diodoquin is extremely potent and, with few exceptions, a twenty-day divided dosage will destroy the offending organisms. This efficient therapeutic effect is due to the high levels of insoluble halogen acting in the lumen of the

bowel. It is a well tolerated and relatively nontoxic amebicide.

Diodoquin's simplified dosage plan, three 10-grain tablets daily for twenty days, is a decided improvement for treating both the asymptomatic and symptomatic forms of amebiasis. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Diodoquin is supplied as tablets of 10 grains (650 mg.) in bottles of 60 and 500.

*Weingarten, M.: Proctology Symposium: Amebiasis: Medical Aspects, Mod. Med. 20:121 (May 15) 1952.

Officers Conference. He then spoke of the responsibilities of the physician in the community, the attendance of emergency patients if the family physician is not available, the maintenance of good press relations, and the importance of participation in the rural health council for better relationships with the rural communities through education on the subject of the medical profession.

A. M. Andreasen, M. D., Secretary.

In Memoriam

BENJAMIN EDWARDS BOONE, M. D.

Elkton

1886 - 1953

Dr. Benjamin E. Boone, 66, of Elkton, died April 9, 1953, at the Jennie Stuart Hospital in Hopkinsville after an illness of several months.

Dr. Boone was born in 1886 and educated in Elkton. He graduated in 1910 from Vanderbilt University Medical Department and served an internship at Bellevue Hospital in New York. He began his practice at Memphis and taught at the University of Tennessee College of Medicine there. About ten years later he returned to Elkton to practice.

Dr. Boone had served on the Todd County Board of Education and was a medical consultant to the county health department. He was a member of the Todd County Medical Society, the Kentucky State Medical Association, and the A.M.A.

PALESTINE T. WILLIS, M. D.

Beaver Dam

1873 - 1953

Dr. Pal T. Willis, 79, died suddenly of a heart condition Thursday, April 9, 1953, in Miami, Florida, at the home of his son, Dr. Hillard Willis.

Born at Nash, Kentucky, in 1873, Dr. Willis attended school at Bowling Green and Vanderbilt University. He received his medical degree from the Louisville Medical College in 1904 and began practice as a general practitioner at Cromwell in Ohio County. Moving to Beaver Dam in 1912, he practiced there for about 40 years.

After some postgraduate work at the University of Louisville in 1910, he did clinical work in Chicago. He did further post graduate work in 1936 at the Mayo Clinic. He also served as surgeon for the Illinois Central Railroad at Beaver Dam.

Dr. Willis was a member of the Ohio County Medical Society, the Kentucky State Medical Association, the Southern Medical Association, and the A.M.A. He also held membership in the Masonic Lodge and the Beaver Dam Christian Church.

DON E. WILDER, M. D.

Booneville

1905 - 1953

Dr. Don E. Wilder, 48, of Booneville, died Sunday, April 5, 1953, of a cerebral hemorrhage at the St. Joseph Hospital, Lexington, where he had been a patient since he was taken ill at his home April 3.

Dr. Wilder attended school in Owsley County and at Frankfort, then went to the University of Kentucky. He graduated from the University of Louisville School of Medicine in 1929. Pioneering in the public health service, Dr. Wilder was health officer for Carter and Owsley counties from 1935 until recent years when he went into private practice. At one time he had also served Lawrence and Breathitt counties.

He was a member of the Owsley County Medical Society, the Kentucky State Medical Association, the A.M.A., the Masonic Order, the Order of Eastern Star and the Booneville Presbyterian Church.

S. S. McREYNOLDS, M. D.

Russellville

1866 - 1953

Dr. Samuel Shephard McReynolds, 87, retired, died at his home in Russellville Wednesday, March 25, after an illness of several days.

Dr. McReynolds, a practicing physician, was also medical consultant for the Logan County Health Department. He sparked the drive for health education in his community and has been considered as largely responsible for elevating the health of the county as a whole above the average in other counties. Born in 1866 at Lewisburg, Dr. McReynolds was graduated from the Vanderbilt University School of Medicine in 1899. He retired in 1950.



It had to be good
to get where it is



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

GIDEON ISON, M. D.**Bonita Springs, Florida****1881 - 1953**

Dr. Gideon Ison, 72, retired physician and former resident of Blackey, Kentucky, died April 5, 1953, in Atlanta after a heart attack while driving his car.

Born in Letcher County in 1881, he was graduated from the University of Louisville Medical Department in 1908. He practiced in Blackey until a few years ago when his health forced him to retire, and he made his home at Bonita Springs, Florida.

Dr. Ison was a member of the Old Regular Baptist Church and a Rotarian.

CHARLES R. MORTON, M. D.**Madisonville****1877 - 1953**

Dr. Charles R. Morton, 75, Madisonville, died Sunday, March 22, 1953, at his home after an illness of several weeks.

Born at Mortons Gap in 1877, he graduated from the Hospital College of Medicine, Louisville, in 1906. He served as health officer for the Hopkins County Health Department for 25 years, a post which he held at the time of his death.

Dr. Morton was a member of the Hopkins County Medical Society and the Kentucky State Medical Association. He was a deacon in the Madisonville First Baptist Church and also church clerk for many years. He was a member of the Independent Order of Odd Fellows since early manhood.

C. A. GALLOWAY, M. D.**Henderson****1858 - 1953**

Dr. C. A. Galloway, 94, retired physician who turned to farming, died Wednesday, March 25, 1953, in Henderson at the home of his son.

Born in 1858 a native Kentuckian, Dr. Gallo-

way graduated from the University of Louisville Medical College in 1883 and practiced medicine in the Cairo and Dixie communities during his early life. He was active in educational and church interests. For the past 17 years, he made his home in Henderson.

BOOK REVIEWS

HAROFÉ HAIVEI (The Hebrew Medical Journal). **Moses Einhorn, Editor: The 25th Anniversary Year Celebration Volume. Published by the Hebrew Medical Journal, 983 Park Avenue, New York 28.**

In the creation of a medical terminology and literature in Hebrew, this Journal claims a leading role. Hebrew is the language of the prophets, priests, and patriarchs of our Bible and has again become a spoken, living language. President John Quincy Adams in the last decade of his long, interesting, and useful life spent many evenings, as he called, in recreation in reviewing the Hebrew alphabet.

This silver jubilee is a pleasant reminder and has made America the center of the Hebrew revival.

PHEOCHROMOCYTOMA AND THE GENERAL PRACTITIONER, by **Joseph L. DeCourcy, M. D., and Cornelius DeCourcy, M.D., authors of Pathology and Surgery of the Thyroid. From the DeCourcy Clinic, Cincinnati 2, Ohio. Published by the Ciba Pharmaceutical Products, Inc., Summit, New Jersey.**

Pheochromocytoma is a chromaffin cell tumor of the adrenal medulla and should be considered in all cases of hypertension. It is known as "the great mimic" among hypotensive disorders, as it imitates all forms of this disease; and it behooves the physician to become familiar with whatever characteristics this disease manifests itself, as well as the pathologist to beware that such a disease exists, and the laboratory technician to be informed on the recent development of tests for epinephrine-secreting tumors.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

JULY, 1953

NO. 7

High Intestinal Obstruction in Newborn and Very Young Infants

Observations in Typical and Atypical Cases

C. MARSHALL LEE, JR., M. D.*

Cincinnati, Ohio

The first successful operation for congenital duodenal atresia was reported by Ernst in 1916². In 1932 Wm. E. Ladd⁶ reported ten cases of congenital duodenal obstruction with seven surgical recoveries. He reviewed the literature prior to this time and collected only ten cases surviving operation, all others being autopsy reports. It is apparent that until twenty years ago the outlook for the infant with congenital high intestinal obstruction was extremely poor. In the decade from 1932 to 1942 scattered reports of surgical success began to appear with increasing frequency, and since 1942 nearly every clinic with a significant infants' surgical service has recorded a steadily increasing percentage of survivals.

The Clinical Picture

This favorable trend has been due, in large measure, to over-all progress in surgical and radiographic techniques, anesthesia, supportive therapy, and antibiotics. Nevertheless these cases still present a real challenge and their successful management requires the utmost in clinical judgment and skill. When congenital obstruction of the upper intestinal tract is either anatomically or functionally complete, the diagnosis is not difficult to make. The clinical picture is that of vomiting with the first few feedings, the presence of bile in the vomitus, scanty or absent meconium, and a characteristic pattern of gas shadows in plain films of the abdomen. When the stomach and duodenum are shown to be distended with

gas and no gas shadows are seen in the rest of the intestinal tract, the clinical diagnosis of duodenal obstruction can be regarded as amply confirmed.

The purpose of this paper is to present seven cases of high intestinal obstruction in newborn or very young infants. They have been selected from the author's personal files as representative of both typical and atypical cases, with a view to discussion of their differential diagnosis and management.

The following are brief summaries of the cases under consideration:

Atresia of the Duodenum

CASE 1. S. E. S. CH No. 74659

This white female premature infant was born in a neighboring town on September 17, 1950 and began to regurgitate bile stained vomitus after her first feeding of glucose water. Her birth weight was just under 5 lbs. and during the ensuing twelve days it dropped below 4½ lbs. She was maintained on parenteral feedings, but vomiting persisted and rather severe abdominal distention was present. She was admitted to Children's Hospital September 29, 1950. Although the family physician had done a remarkable job in maintaining this infant, she was in rather severe fluid and electrolyte imbalance and was treated with parenteral fluids for twenty-four hours before surgery. Radiographic studies showed a hugely dilated stomach and no gas below the level of the duodenum. Because of the marked abdominal distention a small amount of thin barium was used to confirm the level of obstruction. At operation, atresia of the duodenum was found, and a duodenojejunostomy was done. No other anom-

*From the Department of Surgery of the College of Medicine of the University of Cincinnati and the Surgical Service of the Cincinnati Children's Hospital.

Read before the Fayette County Medical Society, Lexington, Kentucky, January 13, 1953.

alies were noted. The infant has grown and developed normally. Her last follow-up visit was on October 8, 1952, at the age of two years, at which time she weighed 23 $\frac{3}{4}$ lbs. She is a healthy, normal child.

Functional Atresia

CASE 2. E. L. R. CH No. 76025

A white male premature infant who was born in another hospital January 6, 1951. He appeared to be perfectly normal at birth, but on the second day of life he began to vomit with increasing force and persistence. The vomitus contained bile. On the second day he passed a single dark meconium stool, but had no other bowel movements. Flat films of the abdomen showed the stomach and duodenum to be hugely distended with gas, but no gas bubbles were seen elsewhere in the abdomen. The infant was admitted to Children's Hospital January 9, 1951, with an admission weight of 4 lbs., 2 oz. After preliminary supportive therapy operation was performed under general anesthesia. A high grade stenosis, amounting to a functional atresia, was found in the third portion of the duodenum. Duodenojejunostomy was done. The infant made a good recovery and was last seen in his family doctor's office January 5, 1953 at the age of two years. At this time he weighed 30 lbs. and his growth and development have been normal.

Stenosis of the Duodenum

CASE 3. R. S. H. CH No. 85269

This white female infant was admitted August 13, 1952 on her third day of life. She had been delivered at term and appeared to be normal in all respects. On the second day of life vomiting began and rapidly became projectile. The vomitus was said to have contained bile and the infant was reported to have had "several" small meconium stools. Three-positional films showed a small amount of normally distributed gas throughout the abdomen, but the stomach and duodenum were filled with air and moderately dilated. A small amount of barium was introduced through a tube and failed to pass the second portion of the duodenum. Several hours later a little of the barium was found to have passed the obstruction, but most of it was retained in the stomach and duodenum. The infant was severely dehydrated and gastric suction and vigor-

ous parenteral fluid therapy were administered for twenty-four hours. Operation was performed on the day following admission. A very narrow stenosis of the third portion of the duodenum was found. Duodenojejunostomy was done and recovery was uneventful. At her last visit to her pediatrician in December 1952, at the age of five months, she weighed 15 lbs., 3 oz. and appears to be growing and developing perfectly normally.

Comment

These three cases represent typical examples of duodenal stenosis or atresia uncomplicated by any other anomaly. Two of the infants were premature babies and one was full term. The clinical picture of early bilious vomiting, distention and either absent or scanty meconium is almost unmistakable. When radiographic examination reveals a dilated stomach and duodenum and little or no gas distal to this point, the diagnosis of congenital duodenal obstruction becomes apparent, and the need for surgical intervention is established. The actual cause of the obstruction is not so definitively clear. It is known, of course, that the duodenum is the second most common location for stenosis and atresia, the highest incidence being in the lower ileum. The difference between high grade stenosis and true atresia is simply one of degree. Although no entirely satisfactory embryological explanation for this anomaly has been adduced, most acceptable theories assume that the mechanism is the same whether the obstruction is anatomically complete or not. In true atresia (Case 1), there is no lumen whatever and no gas or meconium can pass the point of obstruction. Stenoses range from a tiny opening, barely admitting a probe, to slight ring-like constrictions. The lesser grades of stenosis may be asymptomatic or produce no symptoms until months or years after the neonatal period. The high grade stenoses (Cases 2 and 3) produce symptoms which are just as urgent as those occurring with atresia. A small amount of gas may pass the obstruction, and the infant may pass small meconium stools, but from the standpoint of survival no distinction can be made. Both conditions, if not promptly corrected, are rapidly lethal, and for practical purposes they can be considered a single entity.

Although atresia and stenosis are the most common causes of congenital duo-

denal obstruction, they are by no means the only causes. The following case illustrates an almost identical clinical picture with a totally different etiological mechanism.

Malrotation and Volvulus

CASE 4. R. K. CH No. 82276

A white male infant admitted to Children's Hospital February 14, 1952 on his third day of life. He was born at term, weighed 8 lbs., 2 oz., and appeared to be perfectly normal. Vomiting began on the second day of life and was persistent and severe. The vomitus contained bile. There was some question as to whether meconium had been passed. A report of a single meconium stool was not confirmed. Three-positional films showed a markedly distended stomach and a questionable gas bubble in the duodenum. No gas bubbles could be seen anywhere else in the abdomen. After correction of fluid and electrolyte imbalance, operation was performed the day following admission. Upon opening the peritoneum, the first exposure of the small bowel showed it to be small in caliber and markedly cyanotic. A diagnosis of malrotation of the bowel with midgut volvulus was made and confirmed when the whole bowel was delivered. A full 360° clockwise volvulus, around the superior mesenteric artery as an axis, was present, with the colon passing behind the artery. The volvulus was reduced by counter-clockwise rotation and the numerous congenital adhesions, especially those around the duodenum, were exposed. There was no fixation of the mesenteries of either the small or large bowel. The operation of Ladd was performed, completely freeing the duodenum of congenital adhesions and allowing it to drop straight down in the right side of the abdomen. The colon was placed in the left abdomen, with no attempt at fixation. Recovery was uneventful and the infant has remained well. He is now eleven months old and his growth and development have been normal.

Comment on Case 4:

The clinical picture in this case is indistinguishable from that presented by duodenal atresia. A pre-operative differential diagnosis might be made by means of a barium enema, but we seldom employ this study when the diagnosis of duodenal obstruction in a newborn infant is well established. It is gratifying, from an aca-

demic standpoint, to make a complete anatomical diagnosis before operation. However, each additional examination is a further strain on the newborn infant and delays the initiation of supportive and definitive therapy. If the surgeon is familiar with the presenting appearance, at the operating table, of either atresia or midgut volvulus, and is prepared to perform the operation appropriate to each condition, exhaustive pre-operative study is not essential. It is necessary only to establish that a lethal obstruction is present at the duodenal level. The surgical approach is the same in both situations and the indication for operation is clear. Only when there is doubt as to the proper incision to make, or some question as to the type of operation to be required, is further study needed. This point will be elaborated upon in subsequent discussion.

Atypical and Complicated Cases

Unfortunately the pathology is frequently not so clearly defined as it was in the preceding cases, and the symptoms and signs may be exceedingly confusing. Not only is the diagnosis obscure, but the indications for treatment may be equally hard to define. The following cases illustrate some of the problems that may arise.

Non-fixation and Malrotation

CASE 5. P. W. CH No. 81799

A white female infant born at term on July 21, 1951, with a birth weight of 6 lbs., 6½ oz. Within a day or two of birth she began to vomit part of each feeding. The vomitus contained curdled milk, was projectile at times, and the presence or absence of bile was equivocal or inconsistent. The infant never regurgitated an entire feeding and her bowels moved quite normally. Careful examination elicited no neurological basis for the vomiting. Suspecting a borderline allergy or related feeding problem, the infant's formula was repeatedly changed through some seven or eight different natural or prepared infant diets. Vomiting was never severe enough to produce acute fluid imbalance, but at the age of seven months the infant weighed only 12 lbs. She was admitted once to the Children's Hospital at which time all laboratory studies were within normal limits. A barium enema in January 1952 showed a malrotation, with the caecum lying under the liver. An upper G. I. series showed no evidence of duodenal obstruction. The

infant improved somewhat on a lactic acid formula and was sent home. Vomiting recurred at once and she was readmitted to Children's Hospital February 7, 1952. She was again carefully studied but except for the high lying caecum no abnormalities could be demonstrated. The infant's weight dropped to 11½ lbs. I saw her on February 23 at the age of eight months. She was an apathetic, pale, listless infant poorly nourished and small for her age. Since extensive study and thoroughly competent pediatric care had been ineffectual, and since a moderate degree of malrotation was known to be present, surgical intervention was agreed upon. At operation complete non-fixation and partial malrotation was present. The duodenum was compressed and angulated by congenital adhesions but no single point of obstruction could be defined. Midgut volvulus was not present. The duodenum was completely freed and allowed to fall straight downward. The colon was placed in the left abdomen. From a surgical standpoint convalescence was uneventful, but the child continued to vomit occasionally. This slowly receded, however, and she went on to complete recovery. Currently, at the age of seventeen and a half months, she weighs 24 lbs., 4½ oz., and has no gastro-enteric symptoms of any kind. Her growth and development are normal.

Comment on Case 5:

This is one of those borderline cases which are difficult to evaluate and which tax the judgment of pediatrician and surgeon alike. Unequivocal signs of mechanical obstruction cannot be demonstrated. Certain it is that malrotation, of itself, does not necessarily produce symptoms. Many people with incompletely rotated colons and abnormal fixation of the bowel and mesenteries live out their lives without significant gastro-enteric disorder. But when the embryologic processes of rotation and fixation of the bowel are arrested short of their normal completion, the abortive attempts at fixation lead to an unsystematic and highly variable pattern of congenital adhesions. These can produce extrinsic obstruction in the absence of volvulus, by direct pressure or angulation. Since clear radiographic evidence of duodenal obstruction was not available, it was necessary to make the diagnosis by exclusion. The absence of definitive radiographic evidence of obstruction does not rule out its actual existence, and the demonstration of malrota-

tion should place extrinsic obstruction high on the list of diagnostic possibilities when symptoms suggesting partial obstruction are present. Premature recourse to surgery would result in many needless and futile operations, but if careful study and symptomatic treatment fail to lead to improvement, then exploratory surgery is justified and may be extremely rewarding.

Obstruction and Complication

CASE 6. R. G. CH No. 86342

A white male infant born at term but weighing only 5 lbs., 4½ oz. One older sibling is healthy. The infant showed no obvious abnormality at birth but began to vomit shortly afterwards. Vomiting occurred within one or two minutes after feeding, and the vomitus was believed to contain bile. In spite of the vomiting the infant passed several small, normal looking meconium stools. Although vomiting was persistent the infant seemed hungry and took feedings eagerly until the sixth day of life, when he became listless and apathetic. He was brought to Children's Hospital November 9, 1952, his seventh day of life.

Examination showed a well developed, small male infant whose state of hydration was remarkably good in spite of a week of persistent vomiting. Apparently at least part of some feedings had been retained. During examination he vomited bile colored fluid and passed a small quantity of dark green meconium. (With normal digestion of milk the stools lose their meconial characteristics by the fourth day.) The abdomen was not distended, and in the left upper quadrant a rounded, firmly cystic mass could be felt. It did not appear to be tender. Plain films of the abdomen showed moderate distention of the stomach and first and second portions of the duodenum. Some gas was seen beyond this point and gas shadows in smaller quantity could be seen in the jejunum. Beyond this level no gas shadows could be seen.

At operation two entirely separate lesions were encountered. There was a malrotation and malfixation of the bowel with obstructing extrinsic adhesions about the duodenum, but no midgut volvulus. A large retroperitoneal multilocular cystic mass was found, pushing between the leaves of the mesentery of the descending colon, at the splenic flexure. When this was dissected free, it proved to be attach-

ed to the left pole of a horseshoe kidney. The cystic mass together with the attachment to the kidney were resected and the duodenum was freed of adhesions according to Ladd's technique.

Recovery was uneventful and the infant was sent home on the sixteenth post-operative day. He did well at home and reached a weight of 8 lbs. in the next four weeks. One month following discharge from the hospital he was readmitted and operated upon for low mechanical small bowel obstruction due to recurrent adhesions and, unfortunately, succumbed on the second post-operative day.

Comment on Case 6:

This case is a good example of the confusing picture presented when more than one lesion is present and when the obstruction is incomplete. Pre-operatively, the symptoms and findings could be explained by several hypotheses. If one lesion were assumed, a reduplication of the bowel (enterogenous cyst) might have explained both the obstruction and the cystic mass. However, such a lesion is statistically rare, and seldom produces signs of such a high degree of obstruction this early in life. Unless complicated by volvulus, reduplications more commonly manifest themselves either by bleeding, or by signs of lower grade, incomplete obstruction later in infancy or childhood. It seemed more logical to postulate two lesions, one at the duodenal level, and one lower down. Further information might have been gained by barium enema and excretory pyelograms. These were not done because they were not essential to the diagnosis of obstruction requiring surgical intervention, and all information needed for determining the proper surgical approach was available without them. They were, therefore, omitted as needless wastes of valuable time and of the infant's physical reserves. The initial surgical result was entirely satisfactory and it was a grave disappointment to have the infant succumb to recurrent obstructing adhesions six weeks later.

Multiple Anomalies

CASE 7. T. L. D. CH No. 86844

A white female infant prematurely born and weighing 4 lbs., 4 oz. on admission to the Children's Hospital December 5, 1952, her second day of life. Bilious vomiting had occurred following her first ingestion of water, and had been persistent and fre-

quent. No meconium had been passed. Except for very slight abdominal distention and moderate icterus neonatorum general examination was not remarkable. Three-positional films showed very moderate distention of the stomach and duodenum and extreme distention of the jejunum. In the lower jejunum or upper ileum the gas shadows ended abruptly with no bubbles seen elsewhere in the abdomen. A small, faint patch of calcification was seen in the right mid abdomen. A barium enema showed a typical microcolon.

At operation a complicated array of anomalies was encountered. Atresia of the upper end of the ileum was present, and distal to this point the small bowel was little larger than a piece of heavy string. Complete non-fixation and malrotation was present and the tiny bowel distal to the atresia was a tangled, matted mass embedded in dense adhesions, in the center of which was a patch of calcification such as is seen with intrauterine meconium peritonitis. It is interesting to speculate as to why this evidence of intrauterine perforation should have occurred so far distal to the point of atresia. In the distal 6-8 cm. of terminal ileum, there was a reduplication of the bowel. Here the mesentery was congenitally defective with a wedge shaped hiatus and through this a herniation and volvulus of the dilated jejunum had occurred. Repeated attempts, at various levels, to distend the collapsed bowel with saline (Webb-Wangensteen maneuver) were unsuccessful. No potentially functional bowel could be found between the upper jejunum and the caecum. The ileum was transected at the ileocaecal valve and the opening was inverted and closed. All of the congenitally deficient bowel from this point up to the jejunum was resected. Because of the disproportion between the distended jejunum and the microcolon the jejunal stump was also closed, and a side-to-side jejuno-ascending colostomy was performed. The infant's condition was precarious throughout, and in spite of conscientious supportive therapy, it expired on the second post-operative day. Autopsy showed the surgical repair to be intact and death was attributed, by the pathologist, to a combination of prematurity, unavoidably extensive surgery, and the very small amount of functioning bowel that it was possible to leave in the abdomen.

Comment on Case 7:

This is an example of the type of case, fortunately rare, in which multiple and complicated intra-abdominal anomalies are present in the same individual. Not only do they constitute a difficult and confusing diagnostic pattern, but they present a virtually insurmountable problem to the surgeon. It might well be argued that the extensive surgery here performed should not have been undertaken. We believe, however, that it is impossible for the surgeon to draw a clear line as to when a combination of congenital anomalies is intrinsically hopeless. Certainly this infant could not have survived with any less surgery than was done, so that to close the abdomen without any corrective attempt would be to condemn it to certain death. Nothing could be lost by making the attempt. As supportive and surgical techniques improve, we are more and more frequently surprised and gratified to note what a tremendous capacity for survival many of these infants can display. In this instance the surgical effort was unsuccessful, as it has been and will continue to be in many others like it. But as long as there is even the slimmest chance of survival, with the possibility of normal growth and development, the effort should be made.

Discussion

It is apparent that the differential diagnosis and management of high intestinal obstructions in newborn infants may present a considerable variety of problems. In the typical case, where only a single obstructing lesion is present, and when the obstruction is complete or nearly so, the clinical diagnosis is relatively easy. On a statistical basis high grade duodenal obstruction is more likely to be due to atresia or stenosis than to midgut volvulus, but the clinical manifestations may be identical. An astute radiologist may occasionally distinguish midgut volvulus, when barium has been given, by the mucosal pattern at the point of obstruction. Stenosis can, however, simulate this pattern so closely that even contrast media in the upper G. I. tract may fail to differentiate the two conditions pre-operatively. As a general rule, the use of barium from above is avoided both because of the danger of vomiting and aspiration, and because inspissation of any barium left in the bowel may interfere with post-operative bowel movements. When barium in the stom-

ach and duodenum becomes necessary as a part of the diagnostic study, we remove as much of it as possible by suction, as soon as the study has been completed. A barium enema may be helpful, since the presence of malrotation may sometimes be demonstrated in this way. When the obstruction is complete it is likely to be less helpful. In the first place a microcolon is demonstrated in the presence of complete congenital obstruction regardless of the level or the cause^{3,9}. Moreover when midgut volvulus is present at birth the arrest of rotation has usually occurred at a very primitive stage, and the colon is usually involved in the volvulus. If this is the case the barium does not extend high enough to demonstrate the position of the caecum. Therefore, while barium enema may contribute some information in certain cases, we usually do not use it when the evidence is already sufficient to make a diagnosis of high grade duodenal obstruction. It is quite safe to deduce that either atresia (more probable) or midgut volvulus (less probable) is present and plans for surgical intervention can be set in motion at once. A high, right paramedian incision provides adequate exposure for the surgical correction of either condition, and the choice of operation can be made on the basis of the surgical findings. In very rare instances, congenital duodenal obstruction may be due to an annular pancreas^{1,11}, but again the surgical approach is the same, and duodenojejunostomy is employed as it is for atresia or stenosis.

When obstruction is incomplete the pattern in the plain films may be much less distinctive. A variable amount of gas may pass the obstruction, to be unevenly distributed throughout the intestine. The level of obstruction then becomes less clearly defined, although gaseous dilatation of the stomach and duodenum may be sufficient to constitute suggestive evidence. Recourse must frequently be had to contrast media, and thin barium is used, to facilitate its withdrawal by suction or its passage through the bowel, after the study is completed. The amount of barium mixture used is kept at the absolute minimum essential to the study. Attempts to substitute lipiodol for barium have been unsatisfactory because the tendency of the oil to coalesce into globules makes interpretation of the contrast shadows very difficult. When more than one anomaly is present the findings be-

come even more difficult to evaluate and intravenous pyelography may be added to the radiographic study. This is more useful when the uppermost obstruction is high, because the kidneys of the newborn infant have poor concentrating capacity. The indistinct shadows of the renal pelves are difficult to see when overlain by a diffusely gas filled bowel in the presence of low or incomplete high obstruction. Nevertheless considerable information can sometimes be gained from excretory urograms and the study should be included if the diagnostic information gained without it is insufficient.

Importance of X-Rays

A good deal of emphasis has been placed on the radiographic findings because the physical findings are less reliable in newborn infants than they often are when high obstruction is present in older infants or adults. For example, left to right waves of visible peristalsis are seldom seen in these small patients. In premature infants and even in newborn full term infants the musculature of the stomach and small bowel is incompletely developed, and effective and regular peristalsis, even in the normal infant, may not be established for several weeks or even months¹². For this same reason the quality and character of peristaltic sounds as heard through a stethoscope are not as reliable a guide to the presence of mechanical obstruction as they are in the adult. The stomach may become so hugely distended, if the infant swallows large amounts of air, that the protuberant abdomen observed on clinical inspection may suggest low obstruction and diffuse distention of the bowel. The plain films of the abdomen quickly correct this erroneous clinical impression and deflation is usually prompt when nasogastric suction is instituted.

Management

The management of these cases requires close cooperation between pediatrician, radiologist, and surgeon. The necessary diagnostic studies should be completed as quickly as possible but not at the risk of slipshod methods or of overtaxing the infant's limited physical reserves.

When marked distention of the stomach is present the limited vital capacity of the infant is further reduced. Gastric suction should be instituted as soon as the flat films have been made, and oxygen should

be administered continuously, before, during, and after operation. If the stomach can be deflated, much of the technical difficulty at laparotomy can be eliminated. Time must also be taken to correct the often serious disturbances of fluid and electrolyte balance. This delay is generally less dangerous in high obstructions than it is in low ones, because complications such as localized volvulus or ischemic perforation are much less likely to occur⁸. The exception to this, of course, is volvulus of the entire midgut, but even here the circulation is likely to be adequate to keep the bowel viable for a considerable period of time, and actual gangrene is unusual. The patient in Case 4 of this series was subjected to operation on his fourth day of life and the presumption is that midgut volvulus had been present at birth, since no gas had passed beyond the duodenum.

The chance of recovery is substantially increased if water and electrolyte balance is restored, at least partially, before surgery is undertaken, and is carefully maintained after operation. However, overhydration is perhaps even more dangerous than slight dehydration, and should be scrupulously avoided. Small whole blood transfusions (approximately 10 cc. per pound of body weight) contribute a great deal to the chance of survival. Blood loss at surgery should be kept at an absolute minimum, but even if such loss is no more than 10-15 cc., it should be replaced. Moreover there is evidence¹² that the presence of carbonic anhydrase (an enzyme which favors the release of carbon dioxide from the lungs) in adult red cells and its deficiency in fetal hemoglobin, makes transfusion of whole adult blood a valuable supportive measure.

Conservation of body heat is of great importance, especially in premature infants. An incubator with controlled temperature and humidity should be used as soon as the premature infant is admitted, and exposure outside of it, for diagnostic studies, should be as brief as possible. In the operating room we employ a specially constructed table, the temperature of which can be controlled by continuously circulating water¹⁰. A continuous record of the infant's body temperature on the operating table is kept by means of an electric thermocouple rectal thermometer¹. The temperature of the table is adjusted according to the patient's temperature. This table is used in operations on

all small infants whether premature or not. Those who may be interested in a more detailed consideration of the special methods employed in the surgery of newborn infants are referred to the recent excellent report of Gross and Ferguson⁵, and to Clement Smith's monograph¹², which has already been mentioned.

Surgical Techniques

The actual surgical techniques for correcting obstructing anomalies of the upper intestinal tract need not be considered in detail here. It should be mentioned that duodenojejunosomy, while slightly more difficult, is very much to be preferred over gastrojejunosomy. The dilution of gastric acid by alkaline biliary and pancreatic secretions, when gastrojejunosomy is done, frequently produces serious impairment of nutrition and hematopoiesis in growing children and the latter operation should therefore be avoided. In cases of malrotation, with or without midgut volvulus, the corrective operation involves producing an even more primitive state of malrotation and malfixation than that initially existing, but this seemingly paradoxical procedure is much more effective than a necessarily futile attempt to duplicate anatomically normal rotation and fixation. For both of these important observations the profession is indebted to Doctor William E. Ladd of Boston⁷, whose many contributions to this field have earned him an honored name as the Father of Pediatric Surgery. His greatest contribution has been his stubborn refusal to accept the defeatist attitude which so long regarded most of the congenital anomalies

of the intestinal tract as being virtually hopeless and incapable of surgical correction. The vast strides which pediatric surgery has made in the past twenty years are a tribute to his vision and determination.

Summary

1. Seven cases of congenital high intestinal obstruction of infancy have been presented as the basis for a diagnostic comparison between typical and atypical cases.

2. The major considerations in the general management of such cases have been briefly reviewed.

REFERENCES

1. Bigler, J. A. and McQuiston, W. O.: Body Temperature During Anesthesia in Infants and Children, J.A.M.A. 116: 551-556, 1951.
2. Ernst, N. P.: A Case of Congenital Atresia of the Duodenum Treated Successfully by Operation, Br. M. J. 1: 644-645, 1916.
3. Evans, C. H.: Atresia of the Gastro-intestinal Tract, Internat. Abst. Surg. 92: 1-8, 1951.
4. Gross, R. E. and Chisholm, T. C.: Annular Pancreas Producing Duodenal Obstruction, Ann. Surg. 119: 759-769, 1944.
5. Gross, R. E. and Ferguson, C. C.: Surgery in Premature Babies, Surg., Gynec. & Obst. 95: 631-641, 1952.
6. Ladd, W. E.: Congenital Obstruction of the Duodenum in Children, New Eng. J. Med. 206: 277-283, 1932.
7. Ladd, W. E.: Congenital Duodenal Obstruction, Surg. 1: 878-885, 1937.
8. Lee, C. Marshall, Jr.: Intestinal Obstruction in the Newborn Infant, J. Med. Assoc. of Georgia 41: 233-242, 1952.
9. Lee, C. Marshall, Jr. and MacMillan, Bruce G.: The Fallacy in the Diagnosis of Microcolon in the Newborn, Radiology 55: 807-813, 1950.
10. Lee, C. Marshall, Jr.: An Operating Table for Young Infants, Ann. Surg. 134: 1066-1069, 1951.
11. Moore, T. C.: Annular Pancreas: Review of the Literature and Report of Two Infant Cases, Surg. 33: 138-148, (Jan.) 1953.
12. Smith, Clement A.: The Physiology of the Newborn Infant, Ed. 2, Springfield, Charles C. Thomas, Publisher, 1951.

The oldest medical society in the nation, the Medical Society of New Jersey—whose first gathering of 17 physicians met in New Brunswick in 1766—made a donation of \$25,000 to the American Medical Education Foundation at the Society's 187th annual meeting in Atlantic City, May 17 to 20. The grant was voted by the Board of Trustees who stated "that in view of the dire need of funds for medical education and the fact that New Jersey citizens are admitted only to certain schools and do not pay the entire cost of their education, the Society donate through the American Medical Education Foundation, the sum of \$25,000 to be allotted to those schools educating students from New Jersey and to be prorated, as nearly as possible, according to New Jersey students attending these schools."

Physicians in the United States reached an all-time high of 214,667 by the close of 1952, it was reported in the 51st annual medical licensure report of the A.M.A. Council on Medical Education and Hospitals. During that year 6,816 persons were licensed to practice medicine, a net increase over deaths reported of 2,987. The 110,700 additions to the profession in the past 18 years were attributed to the accelerated programs in medical schools, expanded facilities, and the licensure of foreign-trained physicians. A breakdown of the 1952 figure was: 151,363 in private practice; 6,677 in full-time research and teaching; 28,366 as interns, residents, and hospital administrators, 8,166 retired or inactive; and 20,095 in government services.

A Review of the Modern Treatment of Burns

ROY HENRY MOORE, JR., M. D.*

Louisville

The purpose of this paper is to review recent investigative work and to discuss treatment of the extensively burned patient. The advent of the atomic bomb brought forth renewed interest in the burn problem and many excellent and important reports are current in medical literature. Remarkable progress has been made in treatment of burn shock and we are improving local burn care, yet there are many problems to be solved. We must seek methods that are practical, based on sound surgical and physiological principles and remember that there is no substitute for knowledge, skill and good clinical judgment.

It is our hope that every physician will learn something of the principle of immediate burn care. If atomic bomb attacks occur on our cities there will be thousands of thermal burns. Remember that 60% of the casualties in an atomic explosion are thermal burns. A problem of this magnitude in a community staggering from the aftermath of the bomb explosion will require more than the knowledge of a few to cope with the burn problem. An effort is being made to simplify burn treatment as much as possible, to adopt and standardize methods that are practical and can be applied to a great number of casualties.

First Aid and Immediate Burn Care

The extensive burn patient usually suffers great pain and anxiety, depending on the extent and depth of the burn. Pain is best relieved by intravenous injection of morphine in moderate dosage¹. This assures immediate effect, relief of pain and prevents delayed absorption. Morphine given by subcutaneous injection to patients in shock may not be absorbed and later when circulation improves a dangerous overdose results². Anxiety is overcome by moderate dosages of quick acting barbiturates. Tetanus antitoxin or a booster dose of toxoid should be given as indicated, as cases of tetanus have developed in burns. Penicillin is the anti-

biotic of choice and is given in adequate dosage. 300,000 units every six hours is started on admission³.

Attention is given immediately to the treatment of burn shock and local care of the burn area delayed until the general condition of the patient improves. Clothing should be removed so that an accurate estimation of the percent of body surface burn can be determined. The patient is then covered with a sterile sheet until local burn treatment is possible. As blood is drawn for typing, cross matching, blood count, hemoglobin and hematocrit determination, an intravenous infusion of plasma or a plasma substitute is started. If plasma or a plasma substitute is not available, 5% glucose in saline should be started until plasma or blood is available. The patient should be examined for signs of respiratory tract involvement and oxygen therapy instituted as indicated. An indwelling bladder catheter is essential in all extensive burns and should be inserted as soon as possible. Urinary output is an important index to the adequacy of burn shock therapy, as will be pointed out later.

Burn Shock

The mechanism of burn shock is fairly well established. There is loss of a plasma-like fluid and electrolytes from the burn area and into the burn area and adjacent tissues⁴. Red blood cells are also extensively destroyed in the burn area. As a result of this loss of plasma, electrolytes and red blood cells, there is a reduction of circulating blood volume. There is hemoconcentration, decreased cardiac output, blood pressure fall and a decrease in urinary output.

The severity of the shock depends on the percentage of body surface burned. If 10% or more of the body surface is burned, some degree of burn shock can be anticipated⁵. Children do not tolerate fluid loss as well as adults and burns of less than 10% of body surface may produce shock.

Respiratory involvement and the general condition of the patient also influence the magnitude of the shock. Severe res-

*From the Department of Surgery, University of Louisville School of Medicine.

Read before the Annual Meeting of the Kentucky State Medical Association at Louisville, October 7 to 9, 1952.

piratory burns by inhalation of hot gasses or flame usually end fatally, in spite of all treatment. Individuals over sixty do not tolerate burns well and deep burns of 15% to 20% may prove fatal.

Burn Shock Treatment

The purpose of burn shock treatment is to replace the loss of colloids, electrolytes and red blood cells in such a manner as to keep pace with the rate of loss into and from the burn area. Cope and Moore have shown that this loss starts immediately after the burn, is greatest in the first twelve hours and continues for forty-eight to seventy-two hours¹. They have also pointed out that this loss of fluid follows a parabolic curve. This knowledge is applied to the rate of replacement, remembering that the fluid loss starts immediately after the accident and is greatest in the first twelve hour period.

If burn shock therapy is started several hours after the burn, the time interval must be made up. That is, fluid replacement starts at the time of the injury. If a patient is in severe shock, blood must be given vigorously and may require several transfusions going at the same time until blood pressure rises to 100 systolic. It is folly to depend on one transfusion if the patient does not respond rapidly.

Fluids of Choice

It is generally agreed today that whole blood is the colloid of choice because it supplies both plasma and the red cell factor. Two-thirds blood and one-third plasma is recommended by Evans. Experience has shown that whole blood can be given without fear of hemoconcentration.

Sodium chloride (0.9% NaCl) is the non-colloid electrolyte used to replace electrolyte loss. 5% glucose in water the non-colloid, non-electrolyte, in amounts of 2,000 cc. to 3,000 cc. per twenty-four hours, to take care of the normal demand for urinary excretion and insensible loss from the lungs and skin. This fluid, as well as the non-colloid electrolytes, can be given orally if the patient is able to take water, fruit juices or a modified salt solution without vomiting. Most cases, however, will not tolerate the amounts required and intravenous infusion is necessary.

Volume Required

The next problem is to determine how much colloid and non-colloid electrolyte

the burn individual requires during the period of burn shock. This can be determined by certain formulas or judged on the basis of constant clinical observations and experience in treating burn patients.

Many formulas have been used to calculate fluid replacement. Cope and Moore have pointed out that any formula in extensively burned patients must take into consideration the percentage of body surface burned and the weight of the patient. The work of Evans substantiates this observation and emphasizes that unless the weight of the individual is considered, formulas based on the percentage of body surface alone will fall into error.

Both Cope and Moore and Evans have developed formulas that are popular and useful in calculating fluid replacement. The formula of Evans appeals to me because of its simplicity. I have, however, used the formula of Cope and Moore with gratifying results.

Using the formula of Evans, colloid replacement is calculated on the assumption that a burn of 20% to 30% loses 1 cc. of plasma per percent body surface burn per kilogram of body weight. This amount of 1 cc. per percent of body surface burned per kilogram of body weight was determined by experimental work on the dog. An analysis of plasma volume data in a series of burn patients indicates that approximately the same ratio of plasma deficit occurs in human burns involving 20% of body surface⁶.

Non-colloid electrolyte replacement is calculated the same way and 2,000 cc. to 3,000 cc. of non-colloid, non-electrolyte solution supplied every twenty-four hours for insensible loss and urinary excretion.

TABLE I—FORMULA OF EVANS

A 70 Kg. man with a 35% body surface burn would require the following during the first twenty-four hours.

First day requirements:

Colloid=1 cc. per percent body burn per Kg.
0.9% NaCl=1 cc. per percent body burn per Kg.

5% glucose in water=2,000 cc.

A clinical example:

Plasma, plasma substitute or

whole blood ..=70 x 35 x 1 cc.=2,450 cc.

Electrolyte

solutions=70 x 35 x 1 cc.=2,450 cc.

5% glucose in water=2,000 cc.

6,900 cc.

Half this amount of plasma and/or whole blood and electrolyte and the same amount (2,000 cc.) of 5% dextrose in water is given the second twenty-four hours. One should give no more than 4,000 cc. of colloid or 4,000 cc. of saline solutions in twenty-four hours, no matter how extensive the burns. When large amounts of saline are required, if available, one-third should be given as Ringer lactate and two-thirds as sodium chloride.

As will be noted in Table I, the second twenty-four hour requirement is half the first day fluids except for the 2,000 cc. of 5% glucose, which is necessary every twenty-four hours.

Experience has shown that not over 4,000 cc. of colloid or 4,000 cc. of electrolyte solution should be given no matter how extensive the burn. In other words, the calculated fluid requirements of a 50% burn should not be exceeded in treatment of more extensive burns. This conclusion results from clinical observations.

Fluid Delivery Rates

In determining the rate of delivery of these fluids, the rate of loss must be considered, remembering the first twelve hour period is the period of greatest loss, so that about two-thirds of the blood and sodium chloride solution for the first twenty-four hour period is given in the first twelve hour period to keep pace with external loss and the rapidly expanding intracellular loss.

The best index to adequate fluid replacement in burn shock therapy is the hour to hour urinary output. Urinary output should range between 50 cc. and 75 cc. of urine per hour. (Adequate urinary output is an excellent guide to shock treatment of any cause.) Urine should be so collected that hourly output can be accurately determined. This is best accomplished by setting up a series of specimen bottles marked hour to hour over a twelve hour period and the catheter changed from bottle to bottle every hour and recorded.

If the urinary output falls below 25 cc. per hour and remains low for two to three hours, two possibilities exist: (1) The fluid replacement, electrolytes or protein is inadequate. (2) A renal lesion is present, which renders more output impossible.

A water tolerance test can be done by rapidly administering 1,000 cc. to 1,500 cc.

of 5% glucose in water. If the low urinary output is due to inadequate fluid replacement, the urinary output will increase. Low output can also result from a salt or protein deficiency. Replacement of these substances with adequate fluids will correct the oliguria. If the kidneys fail to respond to the water tolerance test using 5% glucose in water, 5% glucose in saline should be used as the test solution or a sodium chloride determination done. If oliguria persists and the patient shows signs of hemoconcentration, the test infusion should consist of plasma. Continued oliguria suggests the presence of renal damage, rendering more output impossible and fluid replacement in large amounts dangerous because of heart failure and pulmonary edema.

Fluid Mobilization

Somewhere in the forty-eight to seventy-two hour period, if fluid management has been adequate, a phase of fluid mobilization takes place in the body. The fluid and electrolytes lost into the burn area and adjacent tissues are returned to the circulating blood volume. This is evident by diuresis and a urinary output increase from 200 cc. to 400 cc. per hour. It is also manifest by the disappearance of edema. High blood levels of sodium and chloride are present at this time and these electrolytes are excreted by the kidneys. During this phase, all electrolyte solutions must be restricted and fluid intake diminished to avoid pulmonary edema.

This usually marks the end of the burn shock period and it is no longer necessary to administer colloids and electrolytes by vein. The patient can usually meet daily fluid requirements by oral intake.

Nutritional Care

The nutritional care of the patient now becomes extremely important and an adequate caloric, protein and vitamin intake must be assured. Food must be appealing and easily digestible. Force feedings may be necessary in some individuals. Interval feedings of protein substances help assure an adequate protein intake and positive nitrogen balance.

Burn patients require large amounts of certain vitamins because they seem to be either utilized, destroyed or excreted at abnormally increased rates.

The following amounts are given daily by mouth or injection: ascorbic acid, 1

gm.; thiamine, 20 mgs.; riboflavin, 20 mgs.; niacin, 200 mgs.; pyroxidine, 10 mgs.; calcium pantothenate, 100 mgs.; folic acid, 25 mgs.; B12, 25 mgs.⁷

If the patient continues to vomit, gastric and intestinal distention must be suspected and treated by decompression with a Levin tube. Potassium and sodium depletion should be suspected and corrected if found to exist.

If the period of burn shock has been managed properly, the patient passes through this critical stage with relatively normal blood chemistry; anemia and serum protein depletion has been avoided. Future use of these agents will then depend on the individual requirements of the patient as determined by blood chemistry and blood counts. Anemia must be prevented by the liberal use of whole blood and the hemoglobin kept at 100%.

A word of caution regarding the use of any formula or fluid schedule is in order, lest we be led into a sense of false security. The fact that a formula is used to determine fluid requirements does not mean that we can go away and feel secure that burn shock treatment is adequate. Careful clinical observation is essential, as changes take place rapidly in a severely burned patient. Burns of over 40% must be seen frequently by someone capable of recognizing the early signs of inadequate therapy. Burns in children deserve almost constant attention, as children do not tolerate fluid or electrolyte imbalance over as long a period as do adults and any change might prove rapidly fatal.

Local Burn Treatment

The objectives of local burn treatment have been clearly defined by Evans³ and other workers with more or less universal agreement, yet there remains to be developed an ideal method of universal acceptance. Two methods are popular today, which will be discussed.

Local burn care should accomplish certain objectives. These have been well outlined by Evans: "(1) To minimize the severity of unavoidable early contamination or infection. (2) To prevent or minimize reinfection. (3) To provide and promote drainage of the burn wound, especially if it should become infected, thus to insure a dry wound. (4) To secure immobilization of the burned part, this to minimize lymphatic drainage. (5) To secure healing in the minimum period of

time and minimum loss of function."

McDowell has pointed out that no ointment or agent will stimulate healing beyond the body's capacity to heal. On the other hand, certain ointments, agents or infections will certainly delay healing by further injury to the cells in the burn wound area.

Blocker has shown that bacteria in a burn wound require warmth and moisture for growth. Any method that traps secretion and macerates the burned area by moisture and warmth may result in infection and damage to viable cells.

Experience has shown that a high percentage of the infections in a burn wound result from contamination of the personnel that attend the wound, especially from the nose and throat. Caps, masks and gloves should always be employed when burn dressings are changed and every precaution used to prevent contamination of the open wound.

The closed method of local burn care is known as the "occlusive pressure dressing" of Allen and Koch. The open-air therapy has been advocated by Blocker⁸ and recently popularized by his reports. The open-air method was first used in this country by Haldon Sneve of St. Paul in 1905 and used until tannic acid and other chemical techniques became popular. In either method, the burned area is gently cleansed with detergents or a bland soap and irrigated with an abundance of warm normal saline or sterile water. Foreign matter and loose shreds of skin are carefully debrided. The area of uninvolved skin surrounding the burn is surgically cleansed to prevent infection from adjacent areas.

Closed Technique

In the closed technique, one layer of fine mesh gauze lightly impregnated with vasoline, or dry fine mesh gauze is applied directly to the burn area. Gauzes thickly impregnated with vasoline or a grease base ointment should not be used as they tend to trap secretion and prevent drainage.

Over this single layer of fine mesh gauze is applied an absorptive material, capable of absorbing secretion for seven to ten days. This is held in place with a kerlex or gauze roll snugly applied. An ACE elastic bandage can be used as an outer layer to produce a more substantial dressing but should not be applied tight enough to exert undue pressure, which

might result in circulatory embarrassment. We no longer believe that pressure dressings prevent fluid loss from the burn area or into the burn area to any appreciable degree. Cope and Moore found in their studies that pressure only reallocates the fluid loss in the burn area and the external loss is about the same.

Evans has devised a one-piece dry burn dressing that meets the criteria described above. It is economical, easy to apply and would be practical in treating great numbers of burn casualties. These dressings are changed every seven to ten days or whenever indicated by clinical observation. If the patient complains of unusual pain, the dressing may be too tight or an extensive and invasive infection may be present. High fever, rapid pulse and an odor from the dressing would also indicate presence of infection and require removal of the dressing.

Usually at the time of the first dressing on the seventh to tenth day, an accurate estimation of the depth of the burn can be determined and plans made for skin grafting the areas of full thickness skin loss. The areas of second degree usually heal in two or three weeks and the slough of the areas of full thickness burn begins to take place. The necrotic slough separation can be hastened by surgical debridement and skin grafted immediately if the area is not too extensive and enough normal skin is available. In very extensive burns where normal skin for grafting is inadequate and the condition of the patient does not warrant a long surgical procedure homografting should be considered as a temporary dressing to prevent infection and nitrogen loss⁸.

The Open-Air Method

In the open-air method, after the burn area has been cleansed and debrided, the patient is placed on sterile sheets with the burned area completely exposed to air. No powder or ointment is applied. A heat cradle is not employed. The room must be a comfortable temperature and free of drafts. The problem of circular burns is met by constant turning of the patient and by placing absorptive material under the patient to prevent the patient from lying in a pool of secretion. Within forty-eight to seventy-two hours, the burned areas are covered by a dry crust that protects and acts as a dressing to the burn area. The open method requires constant attention to detail and unless carried out

properly could become a method of surgical neglect.

The eschar may crack or become loose at the edge. The undermined crust must then be cut away and the raw areas covered with a single layer of fine mesh, Furacin on dry gauze. Between the tenth to eighteenth day the crusts over the areas of second degree fall away or can be gently lifted off, leaving healed skin. The areas of third degree are now distinguishable and are ready for surgical debridement and skin grafting.

The open-air therapy requires excellent nursing care and experienced personnel to obtain good results. Other factors, such as climate, bacterial contamination of the air, humidity and special burn wards, are important factors in the success of this method. Certainly, this method has many advantages and has proven successful when properly used. A combination of the two methods seems to apply to some cases. Burns of the hand should always be treated initially by compression dressings with the hand in a position of function on a universal hand splint.

Skin Grafting

Local and systemic treatment must progress in harmony as the object of treatment is early complete healing of the wounds, which implies early skin grafting. We no longer wait for third degree burns to slough the necrotic material and granulate. This is the period when bacterial invasion is greatest with degeneration of the general systemic condition of the patient due to infection and nitrogen imbalance from the large open wound. The patient must be ready for skin grafting as soon as the areas of third degree burn are well established and the wounds made ready by surgical debridement. This is the ultimate goal of burn treatment, which results in healing and early return to function. There is great need for an enzymatic debridement to hasten the separation of areas of full thickness skin loss. Selective enzymatic debridement that would remove the devitalized tissue, have no toxic effect and would not damage normal tissue will no doubt be developed. The work of Altemeir suggests that the problem is solved in the test tube and in the guinea pig but has by no means been completely solved in the human being¹⁰. The solution of this problem will be a great adjunct in the treatment of burns.

ACTH and Cortisone

Should ACTH and Cortisone be used in the treatment of the extensively burned patient? An answer to this question seems most important in a discussion of burn treatment. Spectacular reports of rather remarkable results from the use of these hormones in burn treatment soon were published in the literature when these drugs became available for clinical use. Enthusiasm spread, based largely on theory and the postulated benefits of ACTH and Cortisone, some of which are as follows: (1) prevent cell damage; (2) minimize intense inflammation; (3) reduce fever; (4) combat shock; (5) prevent capillary oozing; (6) minimize the hyaluronidase spreading factor; (7) prevent adhesions and scars.

We have known for some time that the body responds to trauma, operations, exposure to cold, extensive burns and severe illnesses by the "alarm reaction or the stress response." This response is the result of stimulation of the adrenal cortex to produce hormones which are capable of altering certain metabolic functions of the body. Some of these metabolic changes are beneficial, yet, on the other hand, there may be a sacrifice of certain essential elements that may prove extremely harmful and even fatal unless corrected. There may be adrenocortical overactivity to produce more harm than good under certain conditions.

It would seem most important to know something about the "alarm reaction or stress response" in burned individuals before ACTH or Cortisone is administered to augment this automatic response of the body. This would include a complete understanding of the metabolic changes in an extensively burned individual, as compared to the metabolic changes known to occur in ACTH or Cortisone administration as follows:

- A. Potassium excretion.
- B. Sodium retention.
- C. Altered glucose metabolism, giving glycosuria.
- D. Altered antibody-antigen reactions.
- E. Altered uric acid metabolism.
- F. Altered nitrogen excretion.
- G. Altered excretion levels of corticosteroids and 17 ketosteroids.
- H. Fall in the number of circulating eosinophiles.

- I. Change in water balance, probably dependent on sodium retention.

The "stress response or alarm reaction" can be defined as a chain of events that take place after injury, set in motion by the stressor factor through the central nervous system, adrenal medulla and hypothalamus to stimulate the pituitary to liberate ACTH, which in turn stimulates the adrenal cortex to produce adrenocortical hormones. These hormones then induce a pattern of metabolic changes in the body as listed above.

Evans and Butterfield, in a study to determine the rationale of ACTH or Cortisone therapy in extensively burned patients, pointed out that many of the profound metabolic changes in burn patients show a striking resemblance to the known metabolic changes in ACTH or Cortisone administration. The question then arises as to the value of ACTH or Cortisone therapy to augment the already existing response of the body. Is the stress response adequate and, if not, by what methods can we determine ineffective response of the adrenal gland as a rational basis of hormone therapy? The answer to this question would seem to solve the problem.

Evans and Butterfield investigated the stress response in a series of burned patients by daily determinations of the eosinophile count, corticoid and 17 ketosteroid excretion, potassium, sodium, fluid and nitrogen balance during the period of burn shock¹². From this study they concluded that the natural stress response in an extensively burned patient is surprisingly large and adequate in most cases. The eosinophile count, when accurately determined, correlated with the other metabolic changes due to adrenocortical hormones, and the eosinophile depression appeared closely related to the extent of the burn injury. They were of the opinion that the eosinophile count was an accurate index to the stress response and practical for clinical purpose. Other observers prefer sodium balance, pointing out that accurate eosinophile counts are difficult to obtain and that the count can be depressed so far and no further.

Granted that more investigative work must be done before we can draw definite conclusion, this work of Evans and Butterfield is extremely important because it is an attempt to solve the problem on a rational basis. From this type of investi-

gation will come the answer to this question and at the same time a more logical understanding of the altered physiology in extensive burns.

They concluded that the stress response in severe burns is adequate and that hormone therapy would not be indicated for routine use in all extensive burns. There is, however, the possibility that in the presence of widespread tissue trauma corticoids are destroyed in the periphery and, although the adrenal is working overtime, there may be a peripheral lack of the 11-17 oxy type. So that, in the treatment of burns, despite intensive adrenal stimulation from the pituitary, we may actually be dealing with a deficiency.

If a burn patient is not doing well, that is, if he is not responding to adequate burn shock therapy, a quantitative eosinophile count should be done and if the eosinophile count is above 100 a tentative diagnosis of an ineffective response to the burn can be made.

Cortisone, adrenal cortical extract or compound F therapy might be indicated, not ACTH.

Conclusion

1. The early management of the severely burned patient has been discussed with special attention to burn shock therapy and local burn care.

2. Burn treatment must be constantly reviewed and discussed to acquaint the medical profession at large with the recent trends in management of the extensively burned patient. This is truly a timely subject and will remain so as long as the atomic bomb exists as a weapon of war in a world of unrest.

3. Burn treatment must be practical and as simple as possible, based on sound physiological and surgical principles if the medical profession is to meet the

challenge in the event of a major catastrophe.

4. Hormone therapy must be on a rational basis, developed by laboratory and clinical investigation rather than hope and theory.

REFERENCES

1. Walker, James, Jr.: Pathologic Physiology of Superficial Burns, *Surgical Clinics of North America*, December, 1946; 1492.
2. Beecher, H. K.: Delayed Morphine Poisoning in Battle Casualties. *Journal American Medical Association*, 1944; 124; 1193.
3. Evans, Everett Idris: The Early Management of Burns. *Surgery, Gynecology and Obstetrics*, 1952; 94; 280.
4. Cope, O. and Moore, F. D.: The Redistribution of Body Water and The Fluid Therapy of the Burned Patient. *Annals of Surgery*; 126.
5. McDowell, Frank: Treatment of Burns by Plastic Surgery. *Surgical Clinics of North America*, October 1950; 1350.
6. Evans, Everett Idris; Purnell, O. J.; Robinett, P. W.; Batcheler, Alastair; Martin, Mary: Fluid and Electrolyte Requirements in Severe Burns. *Annals of Surgery*; 135; 806.
7. Lund, C. C.; Levenson, S. M.; Green, R. W.; Paige, R. W.; Robinson, P. E.; Adams, M. A.; McDonald, A. H.; Taylor, F. H. L.; Johnson, R. E.: Ascorbic Acid Thiamine, Riboflavin and Nicotinic Acid in Relation to Acute Burns in Man. *Archives of Surgery*, 1947; 55; 557.
8. Blocker, T. G., Jr.; Blocker, Virginia; Lewis, S. R.; Snyder, C. C.: *Annals of Surgery*; Volume 134, No. 4.
9. Sanders, George Benton; Moore, Roy H., Jr.: Use of Homografts in Extremely Burned Patients. *The American Journal of Surgery*, Volume LXXX No. 6.
10. Altemeir, William A.; Coith, Robert; Culbertson, William; Tytell, Alfred: Enzymatic Debridement of Burns. *Annals of Surgery*, Volume 134; 581.
11. Selye, H.: *Canadian Medical Journal*, 1936, 34; 706.
12. Evans, Everett Idris; Butterfield, W. J. H.: The Stress Response in the Severely Burned. *Annals of Surgery*, 1951, 134; 588.
13. Cole and Elman. *Textbook of General Surgery*, Sixth Edition.
14. Raker, John W.; Wight, Anne; Mitchell, Albert J. D.; Cope, Oliver: A Clinical Evaluation of the Influence of ACTH on the Need for Fluid Therapy of the Burn Patient. *Annals of Surgery*, Volume 134; 164.
15. Haynes, B. W., Jr.; DeBarkey Michael E.; Denman, F. R.: Renal Function Studies of Severely Burned Patients. *Annals of Surgery*, Volume 134; 617.
16. Allen, Harvey S.: Treatment of the Burned Wound Based on the Experience of 1,000 Hospital Patients. *Annals of Surgery*, Volume 134; 566.
17. Child, Charles G.; Holswade, George R.: Replacement and Maintenance of Water and Electrolytes and Protein in the Surgical Patient. *Surgical Clinics of North America*, April, 1950.
18. Trumper, Max: The Potassium Factor in Deep Burns. *Surgical Clinics of North America*, October, 1952.

Young men seeking a career in academic surgery can apply for a scholarship in the field of research to the Board of Regents of the American College of Surgeons with the approval of the chairman of the department of surgery, dean of the same medical school, and the authority of an executive officer of the university making the proposal. Inquiries may be addressed to the Research Scholarship Committee, American College of Surgeons, 40 East Erie Street, Chicago 11.

"Parade of Progress," a new news letter to be published from time to time by the American Medical Association Council on Rural Health, made its initial appearance last month. Sent to a select mailing list of persons interested in the rural health movement throughout the nation, it is the expressed hope of its editors that it will serve as a stimulus and source of information which will be of benefit to all rural health council activities.

Complications of Complete Hysterectomy

W. O. JOHNSON, M. D.

Louisville

Enthusiasm is the spice of medical progress, and we frequently find what we are looking for. In a discussion of total hysterectomy there is usually a glowing report of a series of cases, or a comparison of its merit with supravaginal hysterectomy, both of which are not altogether commendable or comparable, for we as medical men are prone to treat or watch for a series of cases or to compare two procedures that are not altogether comparable in order to bring out our points and beliefs.

If we compare the mortality figures of total hysterectomy we find that they range from 0.0 to 3.8 per cent, while in supravaginal hysterectomy, which is done more frequently by the occasional operator, or in cases when a total hysterectomy should not be done, such as fibroids with grave anemia, fibrosis and endometriosis in a deep pelvis, etc., the mortality ranges from 0.0 to 2.35 per cent or higher. We cannot get a true and accurate comparison unless the same operator and a comparatively similar patient with the same conditions has the same operation.

We shall endeavor to discuss the complications of total hysterectomy from many viewpoints, but not by comparison.

Patients in whom total hysterectomies are not indicated:

- (a) Obese patients with deep pelvis and with old chronic infections or with fixation of the lower uterine segment with fibrosis or endometriosis.
- (b) Massive adhesions to rectum or sigmoid where important blood supply has to be disturbed or sacrificed.
- (c) Aged patients who are poor surgical and recovery risks and whose lesions do not require removal of the cervix.
- (d) Marked anemia with poor surgical risk and a clean cervix.
- (e) Subacute pelvic inflammatory disease where spread of infection to retroperitoneal space is likely.
- (f) Extensive cancer (with pregnancy) beyond surgical care.
- (g) Increasing risk of or to patient when none is indicated or suggested to prevent possible future cancer.

Reasons for selecting total rather than supravaginal hysterectomy:

1. Frequency of return of patients with symptoms referable to the cervical stump (discharge, pain, bleeding, dyspareunia).
2. Possible development of malignancy in the cervix (2-8%).
3. In competent hands there are fewer pelvic floor relaxations and secondary operations.
4. Lowered morbidity and mortality.
5. More satisfactory end results.

The Pelvic Floor

Neither supravaginal or total hysterectomy will be successful if the operator fails to consider the pelvic floor and its status at the time of operation.

1. The holding apparatus, consisting of the pubocervical ligaments or fascia, the cardinal ligaments, and the uterosacral ligaments.
2. The supporting apparatus, consisting of the levator ani muscles with its fascial covering, and the triangular ligament.

When prolapse follows hysterectomy the upper supports or holding apparatus is divided, since they are the only structures definitely related to the operation. But if the supporting structures have been previously damaged, prolapse is inevitable. Therefore this supporting structure should always be considered in association with hysterectomy.

From the figures available it appears that subtotal hysterectomy is followed by five times as many cases of prolapse as total excision of the uterus.

Some reasons why subtotal hysterectomy fails:

1. Operators of varying skills and experience.
2. Not considering or connecting the associated cystocele and rectocele (5-80%).

3. Overlooking chronic cervicitis and postoperative infections results in breaking down of ligamental support.
4. Not properly plicating the uterosacral and cardinal ligaments after removal of the uterine corpus to aid in support of the cervical stump.

The well supported vagina is not shortened (average reported shortened is 7.1%) which is a much harped upon subject. From 55 to 80% of the patients need a perineal repair for good end results. In 88% of the cases there was no change in libido when the ovaries were left in place, and if a dry vagina is a factor (16%), it can be relieved by estrogenic therapy. Leave the ovaries freely movable with good blood supply and no tension on the broad ligaments, and then obtain better healing and end results. This also prevents some of the psychological complications from the complete operation.

Postoperative complications are to a considerable extent in proportion to the perfection of the operator's technical ability and experience, the correctness of the diagnosis, the proper preoperative preparation, minimum handling of tissue, proper hemostasis, proper exposure, adequate drainage, careful selection of anesthetic, and a most scrupulous postoperative care of the patient.

Selection of Operation

There are incidents when the zest of the operator for completion of a series of cases will prohibit his obtaining the end results desired. Best results are obtained for the patient by selecting the type of operation indicated for the particular patient, rather than inflicting routine operations on all patients. The operation, when indicated, should be adjusted to the conditions present, the patient, the estimated risk, and the procedure that will give the best results for that patient.

The surgeon who does one or two hysterectomies per month should adhere to the operation he does best, or the supravaginal hysterectomy, until he is better trained. He should be thoroughly conversant with the pelvic anatomy, have developed a satisfactory technique, and be qualified to take care of any pathology he may encounter before he starts, or he will surely run into unwarranted complications. In the majority of instances a hysterectomy is done with the following associated pathology:

1. Fibroids—20% to 65%

2. Relaxed vaginal outlet (prolapse) 50%.
3. Other infections and benign neoplasms—38%.
4. Chronic salpingitis and pelvic inflammation—26%.
5. Endometriosis—12%.
(higher in some classes of patients)
6. Carcinoma of the fundus or cervix—3%.

Some of the problems to be considered:

1. Hydroureter occurs in about 12% of those cases requiring gynecological surgery, and when found it is 90% reversible when the cause is removed. This finding is significant, and when the patient shows any urological symptoms they should have—

- (a) Intravenous and/or retrograde pyelogram before operation.
- (b) Patients with genito-urinary difficulty or complications encountered in postoperative course should have intravenous or retrograde pyelograms.
- (c) Cases in which the operator feared any ureteral or bladder injury should be investigated.

Some of the frequent recurrent cases of pyelitis and other genito-urinary symptoms can be prevented, and if they are caused by pre-existing pathology, may be corrected before they become irreversible pathology.

2. The congenital urological anomalies (.3%) such as anomalous blood vessels may be a cause of severe complications following an operation, and when indicated, they should be investigated and corrected.

3. Bleeding during the operation is not a problem, except in those cases of carcinoma and/or following radium treatment. These patients should when possible be properly prepared preoperatively and supported with ample blood replacement.

4. Infection from the vagina or vaginal cuff after adequate preparation is not any greater risk in total hysterectomy than in other operative procedures. In cases of cauterization of the cervix and supravaginal hysterectomy, the infection and mucous membrane slough are greater than in total hysterectomy. Postoperative vaginal bleeding occurs only once in 150 cases, and is usually from an infolding of the angle of the vaginal cuff. The bleeding

from this is not fatal, but is surely disturbing.

5. Thrombophlebitis and embolism. These dreads are constantly present and must be reckoned with. All cases with varicosities should be carefully prepared before operation by bandage of the legs, thyroid extract when indicated, and proper ambulation. When thrombophlebitis occurs it should be treated by anti-coagulants and venous ligation when indicated. I have always been impressed by the fact that the cases which develop emboli on the 5th - 7th day usually have no premonitory signs or symptoms.

Analysis of 1057 cases of total hysterectomy in Louisville General Hospital, 1945-1953:

Practically 95% of the cases were operated on by the Resident Staff, and in most instances within twenty-four hours after hospital admission. Eight hundred fifty-seven total hysterectomies, two hundred vaginal hysterectomies, and five hundred cases of vaginal hysterectomy from private practice give the following:

Complications During the Operation

Troublesome adhesions	12.0%
Troublesome bleeding	1.2%
Shock	3.0%
Large bowel injury	1.3%
Ureteral ligation or division	0.5%
Bladder injury	1.0%

Postoperative Course

Morbidity: A temperature of 100.4 degrees F. for two days postoperatively was selected as representing the division between normal and febrile postoperative courses. About 10% were afebrile; 16% had fever for less than two days, and 55% had fever for more than three days. The greatest number had highest temperature on the second postoperative day. The average hospital days were about 12 days. Now it is less than 8 days.

Indications for Vaginal Hysterectomy

Vaginal hysterectomies are indicated when the pelvic floor is relaxed and needs repair and the uterus is sufficiently damaged to warrant removal with no marked adnexal pathology. When properly selected vaginal hysterectomy and anterior and posterior colporrhaphy have about one-half the mortality with fewer pulmonary

complications than total hysterectomy, but do have a 12% higher morbidity rate.

The time of operation for total hysterectomy is not especially prolonged over the other operations. The average is 16 minutes more over supravaginal. Spinal anesthesia is used in 65% of the cases. The average age of patients operated on is 43 years, and the postoperative stay is 12.7 days. Postoperatively, from 5% to 22% have granulation tissue in the dome of the vagina at the point of vaginal closure. This will need cauterization at the first postoperative visit, as it produces prolonged vaginal discharge if not removed.

In this series there were two dehiscence of wounds, and no fulminating peritonitis. The follow-up in the dispensary did not reveal any prolonged recovery or latent thrombophlebitis, and no herniae were reported later.

Delayed Complications

(1) Urological complications

Accidental opening of the bladder is two to one greater in total hysterectomy than in supravaginal hysterectomy, and is not always noted at the time of operation. When bladder injury is closed properly it may cause no trouble, or if not closed it may lead to peritonitis, morbidity, and death. The average bladder injuries reported from the literature are 3.8% in supravaginal hysterectomy; 10.7% in total hysterectomy.

(2) Fistula of various types are inaccessible and may require two or more operative procedures.

- a. Uretero-vaginal fistula
- b. Uretero-abdominal fistula
- c. Uretero-vaginal and abdominal fistula
- d. Vesico-vaginal fistula

The symptoms may start with anuria when both ureters are ligated, or with hematuria from slough and infection, or the effect may not be observed for five to eight days, when the fistula appears and urinary drainage appears through the vagina or incision, and even may not appear for months or years later with an infected silent kidney. In these cases repair at the time of operation, if the condition of the patient warrants, or ligation of the injury should be done if possible. Mortality in this group of ureteral ligations is 33.3% for bilateral ligation, and 18.8% for unilateral ligation.

Treatment for These Complications:
Repair if possible at the time of injury.

- (1) Ureteral anastomosis or transplantation into the bladder when possible.
- (2) Transplant later when advisable—when the patient's condition is good and the blood supply is adequate.
- (3) Bilateral nephrostomy and subsequent transplantation of the ureters when the condition of the patient warrants. Ligate the ureter, if necessary, and produce a silent kidney, if

the other kidney function is good.

- (4) The best way to avoid all of the above complications and trouble is by keeping ureter conscious and not traumatizing or ligating the ureter, or destroying the ureteral blood supply. Delicate handling of tissues and knowing what and how to do the surgery you are doing is essential.

Vesico—or uretero—vaginal fistula is never a desired complication and usually occurs in the thin individual who is a poor risk. As a result of clamping or slough at

NATURE OF POSTOPERATIVE COMPLICATION: (Morbidity—20.6%)

	1057 Cases 1945-1953 (857 Abdominal, 200 Vaginal)	Compiled from Literature (1925 Cases)	500 Cases Private Vaginal Hysterectomy
Wound contaminations	5.0%	2.8%	3.0%
Pulmonary embolus	.62%	.7%	0.0%
Shock necessitating treatment	4.3%	3.1%	1.0%
Thrombophlebitis	1.3%	2.6%	1.0%
Peritonitis (postoperative)	0.3%	0.6%	0.7%
Paralytic ileus	1.7%	2.0%	0.3%
Hemorrhage (postoperative)	1.7%	0.1%	0.9%
Rectal laceration	.3%	—	—
<i>Urinary Infection</i>			
Pyelitis	1.7%	0.5%	1.2%
Cystitis	3.6%	4.1%	5.2%
Retention (Bladder atonia)	1.8%	1.6%	2.0%
Ureteral laceration	0.56%	.62%	—
Bladder laceration	0.45%	0.39%	0.05%
<i>Pulmonary Complications</i>			
Embolus (recovered)	1.0%	0.79%	—
Atelectasis	1.8%	1.0%	—
Broncho-pneumonia	0.7%	1.1%	—
<i>Miscellaneous Complications</i>			
Unexplained temperature (100.4 more than 2 days)	25.4%	21.8%	26.8%
Hematoma (left lower quadrant)	.5%	0.0%	0.0%
Vaginal bleeding	1.8%	2.6%	3.0%
Postoperative psychosis	.3%	—	—
<i>Deaths</i>			
Shock in surgery	1.6%	.5%	0.0%
Pulmonary edema (Heart)	2.0%	.95%	0.0%
Pneumonia	0.1%	1.3%	0.0%
Mortality		(2.25%)	(0.0%)
<i>Data on Vaginal Hysterectomies:</i>			
Unexplained temperature (Morbidity) 100.4 for more than 2 days	35.4%	33.3%	36.8%
Cystitis	12.6%	8.3%	10.2%
Pyelitis	5.2%	.56%	3.2%
Retention	1.0%	—	.5%
Thrombophlebitis	1.6%	—	1.5%

the time of operation, or following four to six days later it begins leaking blood and/or urine. The desire is to repair immediately, but one should wait for at least six months before repair is tried to insure good blood supply to the injured parts. Because the position of the ureters is so variable in the pelvis, especially with interligamentous fibroids (31.3% of these tumors filling the pelvis were associated with hydronephrosis), old pelvic inflammatory lesions and wide resection for carcinoma, injury to the ureters is a frequent accident in pelvic surgery. This complication occurs in from one to three percent of cases, and unfortunately, there are many unrecognized and unrecorded cases.

Ureteral Injuries

There have been 819 cases of ureteral ligation reported to 1945. One-sixth of these were bilateral.

Injuries to the ureter may be from:

1. Direct trauma (Clamp applied to displaced ureter).
2. Cutting or rupture at operation.
3. Ligation by direct ties or kinking and constriction of adjacent tissue.
4. Sloughing as a result of the disturbance of the blood supply, or following injuries as above.

Unilateral injury to the ureter may result in blocking of the kidney, hydronephrosis, and "silent kidney."

Acute postoperative pyelitis is three times more frequent following complete hysterectomy than in other operations because the temporary blocking and swelling of the ureter resulting from the operation as such results in stagnation and infection.

Some authors have stressed that complete hysterectomy prevents cervical stump carcinoma, distressing symptoms of leucorrhea and polypoid protrusions from the cervix. There are not sufficient symptoms to warrant additional risk alone, as the mortality rate of carcinoma is 0.2% to 2.6% in the stump, while the average mortality for complete hysterectomy is over 3%.

Summary

A resume of 1057 cases of total hysterectomy from 1945 to 1953, performed in the Louisville General Hospital is presented. There were 857 abdominal and 200 vaginal hysterectomies in this group. Causes of complications resulting from those operations and their treatment is discussed.

This essay is not to advocate a wide spread use of total hysterectomy, but to show that this operative procedure, regardless of how well done, is associated with or followed by complications and that the procedure must be carefully fitted to the patient, and not the patient to the operation. With all procedures there are grave complications and responsibilities.

Our desire should always be to preserve function, and never to keep intact a series.

BIBLIOGRAPHY

1. E. Bello. "Should Subtotal Be Preferred to Total Hysterectomy in Treating Non-Malignant Lesions?" *Journal International College of Surgeons*, 10:129-34 (January, February, 1947)
2. C. J. Duncan. "Bacteriology of Vagina in Total Hysterectomy." *American Journal of Obstetrics and Gynecology*, 53:324-325 (February, 1947)
3. J. S. Counsellor. "General Considerations." *Journal of the Michigan Medical Society*, 45:1357-1359 (October, 1946)
4. J. S. Counsellor. "Indication for Complete Abdominal Hysterectomy." *S. Clin. North America*, 26:1018-1024. (August 1946)
5. W. C. Danforth. "Total Abdominal Hysterectomy, 500 Cases." *American Journal of Obstetrics and Gynecology*, 52:218-227 (August, 1946)
6. C. J. Hunt. "Indications and Advantages of Complete Abdominal Hysterectomy, Versus Incomplete Hysterectomy." *American Journal of Surgery*, 71:723-727 (June, 1946.)
7. R. W. Noble and E. H. Bishop. "Supravaginal and Complete Hysterectomies, Analysis of Indications, Results, and Dangers." *Journal of International College of Surgeons*, 8:431-436 (September, October, 1945.)
8. J. H. Phillips. "Morbidity and Mortality." *American Journal of Obstetrics and Gynecology*, 50:174-179 (August, 1945)
9. G. Kemperman. "Symposium on Evaluation of Rests." *Harper Hospital Bulletin*, 3:85-87 (August, 1945)
10. H. L. Foss. "Total Hysterectomy." *Southern S. A.* 56:296-301 (1944-45)
11. E. A. Gaston. "Total Abdominal Hysterectomy and Occasional Operator." *Surg. Gyn. and Obs.* 80:539-544 (May, 1945)
12. W. F. Mengert and R. Stoltz. "Total Abdominal Hysterectomy, Observation Based on a Series of 1925 Patients." *American Journal of Obstetrics and Gynecology*, 49:603-614. (May, 1945)
13. H. L. Foss. "Total Hysterectomy." *American Surgeon*, 121:680-685. (May, 1945)
14. E. E. Dilworth. "Urological Conditions Related to Gynecology." *New Orleans Medical and Surgical Journal*, Vol. 104-106: 228 (December, 1950)
15. W. C. Weir. A Statistical Report of 1771 Cases of Hysterectomy." *American Journal of Obstetrics and Gynecology*, 36: 6 Page 1151. (December, 1948)

Early Function in the Treatment of Fractures of the Upper Extremity

WILLIAM K. MASSIE, M. D.

Lexington

A decade ago Clay Ray Murry of New York in setting the ultimate goal of fracture treatment said that fractures should be wished into anatomical alignment and held there by moral suasion while the extremity continued normal function. In the short interim much progress has been made to attain this ideal.

Present Standards

Advancements in anesthesia, roentgenography and antibiotic therapy have raised the standards of fracture treatment. Poor alignment of fragments with resulting deformity as an end result is not acceptable to either the surgeon or the patient. Little, however, has been done to reduce the deformity of prolonged cast fixation, namely joint stiffness. In fact, only since World War II has the surgeon generally accepted as his responsibility the rehabilitation of an extremity and the body as a whole. It is now clear to the profession and laity alike that a forearm healed in anatomical alignment but with associated irreparable stiffness of the hand is a failure in treatment. How often in the past have we seen a Colles fracture healed with adequate reduction but with gross limitation of hand and shoulder motion.

Rehabilitation in the Army attained a high degree of perfection. This is now being emulated in large industrial medical plans. But the majority of our people are neither regimented in the Armed Forces or covered by industrial insurance. The average patient does well to stand the expense of the acute injury and has little money or inclination to pay for prolonged treatment designed to restore normal function. Most often the patient rehabilitates himself awkwardly and for the most part ineffectively. Joint motion restriction so often results from injuries near a joint that it is accepted as inevitable. Efforts are now being made to establish rehabilitation centers for adults to perform a service comparable to that offered the Crippled Child.

Fracture treatment, then, designed to permit early function without the neces-

sity for plaster fixation should eliminate the formation of joint stiffness and thus obviate the need for formal rehabilitation.

Functional Fixation

Functional fixation of a fracture is obtained by any form of internal fixation which provides sufficient stability at the fracture site to obviate the need of external fixation and permit continuation of function of the part. It must incorporate the basic principles of fracture healing, namely adequate reduction, absolute immobilization, and the application of contact compression at the fracture site. Fractures of viable bone will always heal if there is adequate apposition of the fragments, if this apposition is maintained with complete immobilization until healing ensues. Much has been written about the desirability of some motion at the fracture site and some advocate the avoidance of anatomical reduction since both these features produce exuberant callus and are thereby interpreted as evidence of a more firm union. Experimental studies of fracture healing, however, such as those by Urist and McLean leave no doubt of the accuracy of the statement made by Watson-Jones that when viable fragments are in apposition various factors may influence the rate of healing, but only inadequate immobilization will produce failure of healing.

The role of contact compression on fracture healing has been emphasized only in the past decade. In 1932 Key advocated forcible compression of the fragments in fusion of the knee. Charnley in 1948, employing the same technique was convinced that union occurred following a knee fusion in from 6 to 8 weeks in contrast to the usual 3 to 4 months. Eggers, Shindler, and Pomerat described a series of experiments on the parietal bone of rats in 1949 which clearly illustrated the enhancing effect of contact compression on bony fragments and adverse effects of distraction on the healing of bony fragments.

Prior to the introduction of the intramedullary nail by Rush in 1936, function-

al fixation was not possible. Various intramedullary nails have subsequently been introduced in an attempt to limit the angular and torsional stress at the fracture site. In the opinion of the author, only in occasional instances where the contiguous bone fragments are grossly irregular will a single nail perform this function. Adequate fixation, however, can be obtained by the insertion of the appropriate sized intramedullary nail to prevent angulation at the fracture site, and the application of a slotted plate across the fracture to prevent rotation. The plate serves not only to prevent torsion, but increases materially the resistance to angulation.

Indications for Functional Fixation

Functional fixation is feasible only in selected fractures. The indications are well defined.

1) Only fractures of the shafts of long bones are suitable for intramedullary nailing. Rarely can fractures near the ends of long bones be fixed securely enough to permit function. Transverse, short oblique, and occasional comminuted fractures are amenable to plate and pin fixation. Long spiral or long oblique fractures are poorly suited to this fixation since the intramedullary nail makes anatomical alignment of the fragments difficult without producing constant stress between the pin and plate holding the fragments in line. Such opposing stress between the nail and plate will result in bone absorption and loosening of the plate.

2) Fractures of growing bones are usually eliminated since the epiphyseal line is easily damaged and growth thus retarded or occasionally accelerated. Fractures in children can usually be treated satisfactorily by conservative measures without developing refractory stiffness.

3) Pre-existing osteoporosis from any cause makes the application of an intramedullary nail both difficult and temporary. Therefore, a bone which has undergone prolonged immobilization may be perforated along the shaft by the insertion of the nail. It also affords poor fixation for the ends of the nail.

4) Severely traumatized skin overlying a fracture must be avoided or subsequent wound sepsis is likely. Healing is always jeopardized by incisions made directly over bone.

5) Multiple joint fractures in the same extremity requiring cast immobilization nullifies the benefits of functional fixation of any one of the associated shaft fractures.

6) Compound fractures are eligible for this type of treatment. The absolute immobilization promotes wound healing. When the overlying skin cannot be closed without tension it is best left open to be closed secondarily.

7) Sepsis of the wound and subsequently of the bone is not an indication for the removal of the fixation. Properly drained it retards but does not prevent firm bony union. Motion, however, at the fracture site enhances sepsis and further retards union. Compression was shown by Eggers to enhance healing in spite of sepsis, therefore, if absolute immobilization of the fracture can be maintained, the patient should be encouraged to continue function of the extremity and thus increase compression at the fracture site.

8) Elective osteotomies of the shaft of a bone are well suited to this procedure.

Technique is beyond the scope of this paper. Suffice it to say that the choice of improper nails and plates or their improper application results in a poorly immobilized fracture. External fixation must then be applied to accomplish healing and the advantage of open reduction has been eradicated.

Statistics

Eleven patients with fractures of the radius and ulna are summarized. As noted in Table I there was an average period of 7.5 weeks before unrestricted movement was permitted. However, eight of these patients were treated by a Rush nail in both the radius and ulna. A plate was not applied. The prolonged period of restricted motion effected the change to include a slotted plate on the ulna. These three cases were restricted in motion for an average period of 2.2 weeks. Likewise, only three of the 10 humeral fractures were treated by a nail and plate; the other seven were fixed with a single Rush nail. The addition of the plate reduced the average period of restriction from 7.7 weeks to 3.8 weeks.

Of the ten cases of fracture of the shaft of the radius and ulna, six were held with a pin in both bones. The delay in union and the necessity for cast fixation in three cases effected the change to the addition

TABLE I
FUNCTIONAL RETURN OF FRACTURES
Intramedullary Fixation

	RADIUS & ULNA			HUMERUS			RADIUS METACARPALS and PHALANGES	
	Without Plate*	With Plate*	Total	Without Plate*	With Plate*	Total		
No. of cases	6	4	10	5	3	8	5	6
Average weeks in hospital	2	2.2	2.1	1.8	1.1	1.4	0.2	0.3
Average weeks post-operative	9.6	3.2	6.4	8	5	6.1	3.6	4.6
before unrestricted function								
Time in cast in weeks...	7.9	0		4	0		0	0

*The plate used is slotted and permits compression of the fragment ends. Four, and preferably six screws were used. They penetrated only one bony cortex since otherwise they would infringe against the intramedullary nail.

of a slotted plate. The reduction in the period of complete disability was marked. The same transition took place in the treatment of the humeral fractures with a similar but less drastic change. Fixation of the lower end of the radius permitted return to a gainful occupation in 3.6 weeks which is considerably less than can be accomplished by cast fixation alone. It is noted, however, that the period of restricted activity resulting from metacarpal and phalangeal fractures is comparable to that of the humeral fractures.

Fractures of the Humerus

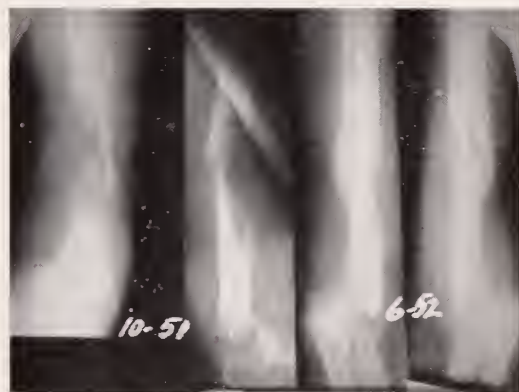
Surgical neck fractures are usually impacted and permit early immobilization without any fixation. If displaced, however, and not responsive to manipulative reduction the insertion of a No. 2 Rush nail in the greater tuberosity will maintain fracture alignment and permit a free range of shoulder motion.

Fractures of the upper and middle third of the humerus heal with exuberant callus when treated by the hanging cast technique which permits early shoulder motion. Residual stiffness can be kept to a minimum. This, then, seems the method of choice in routine cases. Functional fixation may be indicated when there is evidence of delayed union, when a compound fracture must be exposed for debriding purposes, when the fractured humerus is one of a combination of fractures of the upper extremity, or in elective osteotomies of the humeral shaft. (Figure 1.)

Fractures of the Olecranon

Fractures involving the elbow joint usually demand long immobilization and result in restriction of motion requiring prolonged rehabilitation. Rush nail fixation without immobilization seemed a solution, but one out of three resulted in extrusion of the nail and delayed union. Recently the Johansson lag screw has been used with more success. The elbow is never restricted and rehabilitation is obviated.

Figure 1



The use of an intramedullary nail is shown in conjunction with an onlay graft for a non-union of the shaft secondary to open reduction, plate fixation, and subsequent osteitis. An arthroplasty of the traumatically fused elbow not only increased the range of motion at the elbow but reduced the torsional strain at the site of the non-union. Five weeks after nail fixation and three weeks after the arthroplasty the patient was using the arm without restriction of plaster fixation.

Fractures of Radius and Ulna

Fractures of the shaft of the radius and ulna in an adult usually require an open reduction, since alignment must be anatomical to preserve normal rotation. The radius rotates readily in its long axis with so little resistance that negligible torsional stress is applied to its shaft. A fracture of the radial shaft, therefore, if not completely transverse, can be adequately immobilized by an intramedullary nail alone. The ulna, however, does not normally rotate in its long axis. When a fracture is fixed by an intramedullary pin alone, pronation and supination cause rotation at the fracture site and non-union may result. (Figure 2.) When a slotted plate is applied in conjunction with the intramedullary pin, healing is both rapid and complete. (Figure 3.)

Fractures of Radius

Fractures of the lower end of the radius rarely present problems of reduction, but occasionally they present real problems of rehabilitation. Figure 4 is that of a simple Colles fracture of the right radius treated with plaster fixation and resulting in prolonged stiffness of the fingers and a loss of 3 months from work. A similar but somewhat more severe Colles on the contralateral side within six months treated by a Rush nail fixation required no immobilization and permitted normal activity and full employment in a shirt factory within 3 weeks.

Hand Fractures

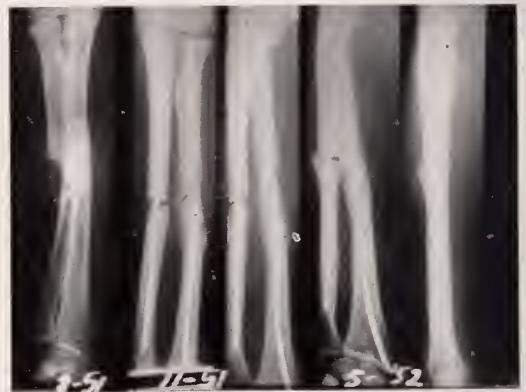
Fractures of the metacarpals and phalanges often result in permanent stiffness of the affected hand. The metacarpals are ideally suited to intramedullary fixation, since there is no torsional stress and angulational stress is inhibited by the other metacarpals. The phalanges, however, are poorly suited to intramedullary fixation, because both angular and torsional stress are applied and the shaft of the bone is too small to permit pin and plate fixation. Dual pins as used in the lower third of the femur would prevent rotation but the intramedullary canal is too small to accept them. A single pin has been used nevertheless, in selected cases because the reward is so great when cast fixation of the entire hand can be eliminated. All cases so far selected have been compound fractures. All have ob-

tained bony union without the need for external fixation, but moderate hand stiffness has developed because the fixation of the fracture has never been perfect.

Multiple Fractures

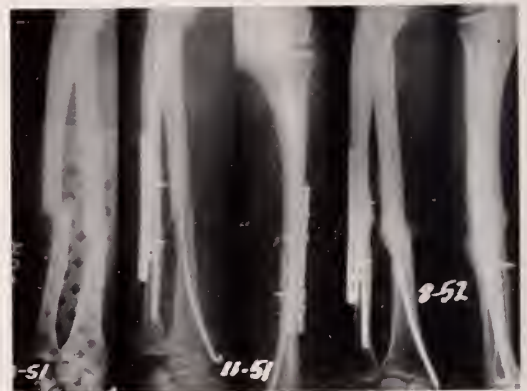
Multiple fractures in the same extremity always present a problem in treatment and usually an even greater problem in rehabilitation. Provided that all fractures in the extremity are suitable for functional fixation, this seems the procedure of choice since motion and function of all contiguous joints is maintained. If, how-

Figure 2



Three months after reduction the radius was healing well, but three months post-operative the ulna was still delayed. Rotation occurred at the ulna fracture site preventing healing.

Figure 3



Without cast or any external fixation, patient returned to light work in three weeks and full mechanical work in two months. Union was complete nine months post-operative. Ulna healed promptly because rotation was prevented.

ever, one or more fractures are not suitable for functional fixation, little is to be gained by openly reducing the suitable fractures unless such fractures would not respond to closed reduction. Figure 5 illustrates a fracture of the radius, humerus, and clavicle all amenable to functional fixation. The extremity progressed to almost full function in 6 weeks. Fixation of any two of these would have considerably impaired a full range of motion of the extremity.

Sepsis

Sepsis complicating compound fractures has not been completely eradicated by antibiotics and so-called adequate debridement. The lower third of the leg presents this complication far more frequently than other sites, but occasionally it is experienced even in the upper extremity. When internal fixation is used and sepsis subsequently develops, the author feels that this is not an indication for removal of the fixation and complete immobilization in a cast. If the fracture site is adequately immobilized, function may be continued provided there is adequate dependent drainage of the fracture site and bony union will ensue. If the internal fixation, however, is inadequate, plaster fixation must also be applied. Figure 6 demonstrates a compound comminuted fracture which was inadequately immobilized by internal fixation. Plaster fixation

Figure 5

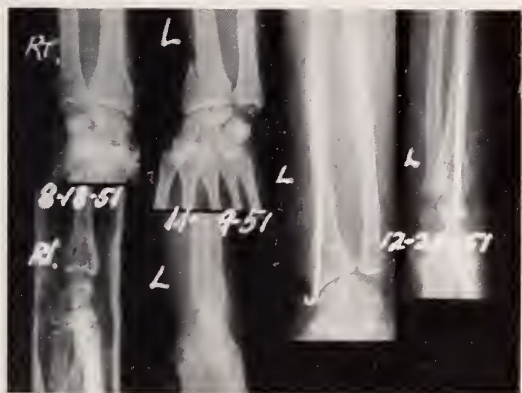


All fractures were fixed in two operations. The pin used in the clavicle has been removed. A cast was not applied. Free motion was encouraged from the beginning.

Figure 6



Figure 4



Right wrist, though adequately reduced resulted in prolonged finger stiffness. Left wrist fracture is more difficult to maintain because of tendency for radial deviation. A single pin permitted unrestricted use in three weeks.

should have been applied immediately post-operatively, but it was postponed for 2 weeks. Sepsis developed, enhanced by motion at the fracture site. Plaster spica immobilization and dependent drainage for 3 months resulted in sufficient new bone formation to justify unrestricted activity. The patient returned to a gainful occupation in spite of continued drainage from the fracture site. The range of shoulder, elbow, and hand motion returned to normal and 10 months post-injury both the intramedullary pin and several large sequestrae were removed. The humerus, however, had formed a firm bony involucrum which permitted a return to normal activity, 5 days after sequestrectomy. Had the internal fixation been removed when sepsis developed, the period of cast fixation would have been doubled or probably tripled and the resulting stiffness would have prevented

(Continued on page 323)

SPECIAL ARTICLES

THE PHYSICIAN'S RESPONSIBILITY TO HIS COMMUNITY

JULIAN P. PRICE, M. D.

Florence, South Carolina

According to the dictionary a community is "a social group whose members reside in a specific locality, share government, and have a cultural and historical background." I prefer to think of a community as a group of families and individuals living in a given area so as to afford mutual protection, endeavor and pleasures. Each family or individual is an independent unit; yet, each is of necessity dependent upon the other for safety, for livelihood, and for enjoyment of life.

Our nation was founded upon small communities. The lone pioneer could care for himself in the forest or wilderness; but when he acquired a family, he found it safer to live with a group where he could join with other men in the defense of their homes. Living in a community gave him the privilege of devoting his efforts to the particular work for which he had talent or training. It gave him and his wife companionship, his children the advantages of a school, and afforded the family the opportunity of joining with others in social activities and religious worship.

The community thus offered our forefathers privileges which could not be enjoyed by the individual or family living alone. But it also imposed a definite obligation. Each individual was expected to do his proportionate part in any joint effort, be it fighting, working, or paying the salary of the teacher; and only as he did this, was he recognized and accepted as a worthy member of the group.

As the years passed and our country grew and developed, profound changes took place in the mode of living. But I do not think that we today are a different type of people from those who settled our country. We are still human beings with our strength and our frailties, and we still live in communities. Some communities consist of an entire city, and some are but a segment of a great metropolitan area;

but communities they are. Those who live in them are still afforded the same fundamental privileges which our forefathers enjoyed, and they are still challenged with the same fundamental obligations.

With this concept as a background, I will now consider the responsibility of the physician. A prime obligation, which we all recognize, is that of rendering the best professional care possible to his patients, but it is not of this I wish to speak. Rather, I want to consider the physician's responsibility to those non-medical activities which are an integral part of community life.

The first of these is public education. The physician, as a father, as a taxpayer, and as one of the best educated men in his community, should be vitally concerned with our educational system. All too frequently, he is not. He seems content to let others run the schools as they will, to let his wife help the children with their homework, and to assume no responsibility for what is going on.

The public schools wield a powerful influence in our country, exceeded only by the home and the church. What our children are learning in them today will help to shape the policies and principles of our communities and of our nation tomorrow. If we as physicians are interested in the future of ourselves and of our children, we must be interested in the schools.

Here are a few questions every physician would do well to consider. Are the schools in my community doing the job they are supposed to do? Are physical facilities adequate, and are there sufficient safeguards for the children's health? What of the teachers—are they individuals of good character, qualified to mould the thinking of our boys and girls? What of the athletic coaches—are they concerned only with developing good athletes and winning teams, or is their aim to teach

good sportsmanship as well? What of the textbooks—are they based on the fundamentals of American principles and religious ideals, or are they tinted with the message of socialism and atheism?

Having secured the answers to these questions, it then becomes the duty of the physician to see that the inadequacies in the educational system are corrected. I know physicians who are members of school boards of trustees. In my state we have a state association of school board trustees, and the chairman of this organization last year was a urologist. I know physicians who participated actively in a state-wide survey of the public education system. I know physicians who have taken the time to study school textbooks to see whether they contained insidious propaganda. I know of physicians who drop by frequently to see the coach and boys at football practice and then sit with them on the bench during regular games. I know physicians who stimulated night meetings of a Parent-Teachers Association so that they or other fathers could attend. Two weeks ago, I attended a meeting of a Junior High School P.T.A. of which a surgeon is president and an ophthalmologist immediate past president. These men are examples of what physicians can do in the field of education when they get to work.

A second field of community activity which I would commend to physicians is that of providing adequate social and recreational facilities for our boys and girls.

The South Carolina Industrial School for Boys is located in my home town. I have had frequent talks with the superintendent and athletic director of that school about the boys who have been committed for care. They are called delinquent boys, but it would be more accurate to state that they are boys who come from delinquent homes and delinquent communities.

In their efforts to rehabilitate these boys, the superintendent and his staff have found that one of their greatest aids is that of getting the boys to participate in a wholesome athletic and recreational program. And they are convinced, as are others who work in this field, that such programs are also the best method of preventing boys and girls from getting into trouble with society and the law.

There is no member of the community who is better qualified than the physician

to stimulate, to promote, and even to participate in such recreational and social programs. There is no individual whom the average boy will respect and follow quicker than he will the doctor.

The opportunities for service are plentiful. The Boy Scouts, the Girl Scouts, the Y.M.C.A., youth groups in churches, and numerous other organizations are begging for the interest and support which physicians can give. Some doctors I know have responded to the challenge. Recently, I invited a younger colleague to dinner to meet a distinguished guest. "I would love to come," was his reply, "but our Cub Scout Pack meets that evening and I can't disappoint the boys." Would that more physicians had this sense of responsibility to the boys in his community.

Charitable and philanthropic agencies are also community activities which are in need of the help which physicians can give. Who knows the problems of the people in his community better than the average doctor, and I am not referring to the Park Avenue specialist but to the practicing physician who sees the patients in his office and in the home, who talks to them of their difficulties and senses their needs? Who is better qualified to sit on the board of trustees and committees of those organizations which, in the spirit of the Good Samaritan, help those who are unable to help themselves? Who is more able to institute and supervise programs of physical, economic, and social rehabilitation? Who is in a better position to understand and deal with the growing problem of alcoholism?

Charitable and philanthropic organizations also need the financial support of doctors. The average doctor is well able to give and to give generously, but all too frequently mere token offerings are made. A friend of mine told me of an experience in soliciting money from two physicians. The doctors had offices in the same building and each was in the upper financial bracket. The cause was a worthy one. One doctor seemed to appreciate the privilege of giving and quickly wrote a check for a hundred dollars, the other, after much discussion and with considerable reluctance, gave a check for ten dollars. Who am I to judge, but it would seem that to the first man the needs of his community were a responsibility and an opportunity for service; to the second, they were a nuisance and a headache to be palliated with a dose of aspirin.

A fourth area of community life through which a physician may make his contribution lies in membership and activity in service clubs and similar organizations. During my college and medical school days I was exposed to the blaring of the sophistates, headed by Sinclair Lewis and H. L. Mencken, as they derided and scoffed at Babbitt and Rotary Clubs. To hear these men rave, one would assume that only an ignoramus or one with a warped personality would consider joining such an organization. In spite of this I became a member of the local Kiwanis Club soon after entering practice and have been a member for 24 years. From my personal experience, I am now convinced that Lewis and Mencken were the ones who were warped and not the members of the clubs.

Membership in these clubs and organizations affords one the privilege of participating in various activities: working with boys and girls, helping underprivileged children, promoting better urban-rural relations, promoting community projects, making and putting into effect plans for better government. It gives one of the fundamental privileges of a community, the companionship of our fellowmen. Friendships are formed which become more treasured as the years go by. And then membership in these clubs and organizations with their regular meetings and personal contacts helps to lift a physician out of the rut of his daily work and of his narrow interests—and how we physicians need to lift our eyes to see what is happening outside of our own little spheres.

The fifth part of community life to which I would urge that a physician lend his support and energy is in the work of the church, and the need for such participation has never been greater than it is today.

If one were to appraise the health of this nation, I think he would say that the physical and mental health of our people is relatively good, but there is evidence of spiritual disease. Here are some of the symptoms we have all noted: the reports of the special investigating committees showing the hold which crime has upon our legislative and social life; the crowded population of our prisons and penitentiaries; the inner laxness of morals in our national government in recent years which led Herbert Hoover to say, "We have a cancerous growth of intellectual

dishonesty in our public life"; the selling out of basketball games and the dismissal of football players for cheating; the peddling of narcotics to our youth; the disregard for the sacredness of the marital vows which has resulted in the breaking up of more and more homes; the incessant search for fleeting pleasure which causes our people to spend four times as much for alcoholic beverages as they do for religious and welfare activities. When one adds to the forces which have produced such symptoms, the insidious malady of communistic ideology which is threatening the world—an ideology which would do away with God and the eternal verities, one can see the imminent danger with which our spiritual life is threatened.

Since the disease is spiritual, the treatment must also be spiritual. The enactment of more stringent laws may help to protect our youth, but it will not destroy the desire of those who would prey on their innocence and ignorance. Making it extremely difficult to obtain a divorce might diminish the number of separations between husbands and wives, but it would not insure more wholesome homes for our children. Adoption of codes of ethics for members of legislative, business, and professional groups may help to separate the sinners from the upright but it will not destroy the desire to sin.

The only remedy which is of any avail in a fight against spiritual disease, and to this history bears eloquent testimony, lies in a change of the human heart. This change must come in the heart of the average citizen—the butcher and the baker, the farmer and the business man, the lawyer and the laborer, the housewife and the doctor; for it is the average citizen who ultimately determines the course of a nation. There must be a spiritual rebirth, a turning to God and to his eternal principles, if we are to survive.

Most physicians I know are men of high principles. The majority of them are church members. Many of them hold strong religious beliefs and yet, for some reason, tend to shy away from expressing these convictions except in private conversation with intimate friends. As a result the public is prone to regard the average physician as a man of good moral character but one who is lukewarm toward religion itself and the work of the church.

What would happen if the thousands of physicians in this country who are mem-

bers of churches would suddenly renew their faith and wage an all out fight against spiritual disease such as they are now waging against physical disease? What would happen if this same group of men were to let the people know, in clear and unmistakable language, the principles for which they stand and the beliefs which they hold? I do not know, but I am sure that the results would be astounding. It might well strike the spark which would halt our nation in its present course and lead it toward a spiritual re-

vival which is our greatest need.

Schools, youth activities, charitable organizations, service clubs, the church are five areas of community life in which the physician should be concerned. Am I asking too much of the busy doctor in the suggestions I make; am I seeking the impossible in the goals I set; or am I merely reminding the physician of the responsibilities which are already his if he is to be a worthy member of his community? I leave the answer to you.

FACILITATING THE EMBRYO PHYSICIAN'S TRANSITION

CHARLES McGAFF*

Louisville

On the day he graduates from medical school the young physician may become a member of the American Medical Association. He then benefits from a strong national organization and has a voice which reverberates through the land. But what of his four years training before this day? Why does he not have a national voice to express the student opinions? Why is organized medicine suddenly dumped in his lap? Why must the graduating student have many decisions and requirements thrown at him which he must blindly accept, simply because he is not organized?

As an answer to these questions and on the premise that an organization representing the student in all the medical schools in the country would better the lot of the embryo physicians, the Student American Medical Association was officially formed in December, 1950. The S.A.M.A. has rapidly grown in size until now it represents over 16,000 medical students in 61 schools.

Its founding was aided by the A.M.A. both financially and in an advisory capacity. It is important though to stress that the financing was in the form of a loan which is to be paid back. It is also important to stress that this young organization is completely separate from the A.M.A., and though willing to receive advice from the A.M.A., makes its own de-

cisions according to the feelings of its membership. An example to prove this point is that the S.A.M.A. House of Delegates in December, 1952, passed a resolution that doctors should be drafted irrespective of time of graduation or length of practice, whereas the A.M.A. has recently proposed the drafting of younger men.

The complete resolution was for a doctor draft on a point system weighing length of service at any rank or rating in any branch of the armed forces, length of service outside of the continental limits of the United States, and duration of service within combat areas. This and many other such resolutions and recommendations have been sent to appropriate places and committees over the country, and we feel that by representing the opinions of 16,000 students they are being given proper weight.

The S.A.M.A. also has a monthly journal which is both scientific and informational. It is sent to members only and is read avidly. It keeps the students posted on what is happening to affect them throughout the nation, especially in Washington, and also provides many articles on practical aspects of medical practice of invaluable aid after graduation. It has been widely accepted by the drug houses and is now a profit-making journal.

The association has an annual convention in Chicago of delegates from all member schools. There are scientific

(Continued on page 323)

*Senior student, University of Louisville School of Medicine. Member of the eight-man Executive Committee, Student American Medical Association. One of two U. S. medical students who represented the S.A.M.A. at the A.M.A. meeting in June.

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

G. Y. Graves, Bowling Green..... President
J. Duffy Hancock, 704 Brown Building, Louisville..... President-Elect
Charles B. Johnson, Russell..... Vice-President
W. O. Johnson, 605 Brown Building, Louisville..... Vice-President
Bruce Underwood, 620 S. Third Street, Louisville..... Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville..... Treasurer
Hugh L. Houston, Murray..... Speaker
Charles A. Vance, 310 Security Trust Building, Lexington..... Vice-Speaker
Douglas E. Scott, Lexington..... Orator in Surgery
Paul Simpson, Covington..... Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Ealey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1953
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1953
Third District Delmas M. Clardy, Hopkinsville.....	1953
Fourth District J. I. Greenwell, New Haven.....	1953
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. R. Cummings, Flemingsburg.....	1953
Tenth District J. Farra Van Meter, 183 N. Upper Street, Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1953
Twelfth District Carl Norfleet, Somerset.....	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman.....	1953
Fourteenth District Paul B. Hall, Paintsville.....	1953
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

THE "WHY" OF G. G. CONTROL

The value of gamma globulin in prevention of poliomyelitis is questionable even at best. While the experimental work done last summer was carefully and scientifically conducted, its results are not so clearly defined as to remove all doubt. There are many factors involved. First, we must remember that any immunity is only temporary. Second, if the material is to be of benefit, it must be given within a relatively short time after exposure. Third, there are many carriers and missed cases for every diagnosed case of the disease; consequently, we do not know who has been exposed and who has not.

The basic allotment to the State Health Department is only 2,400 doses of gamma globulin for poliomyelitis. We are in-

formed that the allocation plan of the state will follow closely the plan recommended by the National Allocating body. The material is to be used only for household contacts of diagnosed cases under 30 years of age and any prenatal cases who are household contacts.

While it is realized that every physician will be under pressure to obtain gamma globulin for all children in his practice, we are requesting that you work with the State Health Department and explain the situation to your patients. Only by following this plan will we be able to realize any benefit at all from the use of gamma globulin.

W. W. NICHOLSON, M.D., Chairman
Advisory Committee on Pediatrics

AMERICAN MEDICINE'S REPORT TO THE NATION

A story of progress and several ringing challenges to the medical profession and the people were skillfully blended in "American Medicine's Report to the Nation" presented to the American Medical Association House of Delegates and a nationwide radio audience during the course of A.M.A.'s recent annual session in New York by Edward J. McCormick, M. D., Toledo, as he was installed as president of the American Medical Association.

Describing the preceding year as "one of exceptional progress in medical science," Dr. McCormick called attention to the gains made in medicine and invited attention to the promises for the future which new discoveries during the past 12 months have unfolded.

Because the bulk of his audience consisted of laymen, Dr. McCormick rightfully gave special emphasis to progress which affects the distribution of medical service to the people. It was in this area, too, that he issued some of his most significant challenges.

Progress in expansion of medical school facilities was given special consideration.

Dr. McCormick pointed out that several new medical schools are on their way. He re-emphasized that the number of graduates from medical schools has increased more than 19 per cent during the past ten years. He stated that there is every indication that the next 10 years will show an increase of an additional 25 per cent.

He called attention to the three million dollars contributed directly to medical education by some 37,000 American doctors. He urged private support of medical education funds by both physicians and the public as an important element in meeting the needs of these schools without resorting to the dangers of federal subsidization.

He reminded his audience that with one physician for every 730 people in the United States, the problem of getting medical care to the people is not so much one of requiring a substantially larger number of physicians as it is a problem of effecting more satisfactory distribution of physicians throughout the nation. At this point he issued a challenge to the peo-

ple residing in areas which are short on physicians. He told them that they have a responsibility to meet their own problems by taking a lead in establishing the type of facilities for his use which would attract physicians to their community.

A challenge to the profession was clearly issued in which Dr. McCormick called on the doctors to move vigorously in ridding their ranks of the "small number of greedy and godless physicians who flagrantly violate the traditions of the medical profession." Speaking to this problem of the profession, he said, "Here

and now I call upon all county medical societies to continue to expel from our ranks those who are unethical, dishonest and unfair. We cannot protect or condone the few who bring disgrace upon us."

Those who failed to hear Dr. McCormick's address missed much. His clear thinking and effective presentation give us just cause to be proud of the A.M.A.'s new president. If you did not hear it, we recommend that you read it in the Journal of the A.M.A. It was a determined and sincere message which we can all take to heart with benefit.

"NO CHAIN IS STRONGER . . ."

In the final analysis successful meeting of the Kentucky State Medical Association's Civil Defense planning obligations will largely depend on the degree to which each county medical society in the state is willing to assume its rightful part.

Recognizing this, the K.S.M.A. Committee on Emergency Medical Service has recently requested each society to examine its needs carefully and report specifically on its abilities to provide necessary assistance to other areas in the event that disaster strikes. The suggestion has been made that the problems inherent in such co-operation be thoroughly examined by all means, including joint study with hospital authorities in each county. It is hoped that the product will be a thoroughly developed and detailed plan reaching down to the grass roots from whence the ultimate resources for meeting a major

disaster must come.

In urging their own societies to take prompt and effective action in response to the request by the Committee on Emergency Medical Service, officers must recognize that the atom bomb in the hands of an enemy may not be the only cause of major catastrophes. Nature on a rampage can still make man's greatest efforts seem puny. At the same time man-made disaster potentials exist even in most peaceful times. An earthquake or a Texas City disaster can strike at any time. They strike frequently without warning. To be prepared, we must act now. To be fully prepared, we must make full plans now. Basic preparation depends on local recognition by all of the responsibilities of all. The obligation rests especially heavy on the medical profession.

THE BEST IS YET TO BE

Another milestone on the road of progress in the economics of medicine was celebrated in Louisville June 2, when William P. Marcum, a 24-year-old navy veteran, was honored as the 26 millionth American to be voluntarily insured under the nation's Blue Shield Medical Care Plans.

Unless we glance at the speedometer, we may overlook the true significance of this marker along the speedway of voluntary health insurance coverage. There are those who look at the length of the total journey with eyes of pessimism and misgivings. They fail to see the rapidity

with which America is moving toward a practical solution of the average man's medical budget problems. We have a responsibility, therefore, to impress on others what this figure "26,000,000" actually means.

In less than ten years, the Blue Shield enrollments have increased by 2,500 per cent. This should demonstrate to all that the American people have a growing desire, in their own way, to provide themselves with such protection and that this eagerness is paralleled by the Blue Shield efforts to make it available. From

(Continued on page 326)

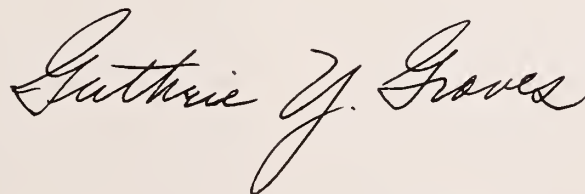
President's Page

In assuming the office of President of the Kentucky State Medical Association, I am mindful of the heavy obligations which have been placed on my shoulders. The men who have preceded me in this post of honor and responsibility have set standards of achievement which are not easy to attain.

The prodigious energy and enthusiasm of my predecessor, the late Haynes Barr, coupled as they were with a keen grasp of medicine's needs, set an example which might well be emulated by all men who come to this office.

Dr. Barr, the K.S.M.A. Council and the House of Delegates have charted a course which, if carried to its logical conclusions, can only redound to the benefit of the medical profession and the people of Kentucky. Much remains to be done to see these objectives through. It is my sincere desire that my brief administration can make, in addition, some small contribution.

It is my hope that every member of the Kentucky State Medical Association will join me and the other officers in the furtherance of our state program. Your suggestions and advice are solicited. Your cooperation is urged.

A handwritten signature in cursive script, reading "Guthrie J. Graves". The signature is fluid and elegant, with a large initial "G" and a long, sweeping underline.

PRESIDENT

ORGANIZATION SECTION

Dr. G. Y. Graves Named President by Council May 21



Dr. Graves

Guthrie Y. Graves, M.D., Bowling Green, became president of the Kentucky State Medical Association, following his election by the Council of the Association at a special meeting called for this purpose in Frankfort, the night of May 21.

Dr. Graves has served as vice-president from Western Kentucky since the 1952 annual session of K.S.M.A. He will fill a vacancy created by the death of R. Haynes Barr, M.D., May 5, and will serve until after the 1953 annual meeting in September, when officers elected at last year's meeting will take office.

In addition to his position as a vice-president of the Association, Dr. Graves has been active in K.S.M.A. committee work. At the time of his succession to the presidency, he was chairman of the Committee on Emergency Medical Service, and as such has worked in the creation of a program for emergency and disaster medical care for the State of Kentucky.

The K.S.M.A. Committee on Emergency Medical Service is one of the largest and most active committees in the Association. This committee, headed by Dr. Graves, has had the responsibility, with its eight subcommittees

and 40 physician members, of working closely with the state Civil Defense organization. This work has been principally concerned with setting up medical units as a part of the various mobile support groups throughout the state. Dr. Graves has been in the forefront of this work since its inception.

Dr. Graves is 49 years of age and practices in Bowling Green, where he directs the Graves-Gilbert Clinic. He was graduated from Vanderbilt University School of Medicine in 1925.

Dr. Graves is a diplomate of the American Board of Surgery and a fellow of the American College of Surgeons, the International College of Surgeons, and the Royal College of Surgeons of Edinburgh, Scotland. He is a director of the Kentucky Division of the American Cancer Society.

Dr. Martin Defeats Dr. Robins in AMA Presidential Race

Walter B. Martin, M.D., Norfolk, Virginia, was made president-elect of the American Medical Association when he defeated R. B. Robins, M.D., Camden, Arkansas, during the annual meeting of the A.M.A. House of Delegates in New York, June 4.



Dr. Martin

Dr. Martin has been serving on the Board of Trustees of the A.M.A. and has also served as a member of the Council on Medical Service and the Co-ordinating Campaign Committee, which helped defeat the effort to pass compulsory health insurance.

Dr. Robins is a past vice-president of the A.M.A., past president of the American Academy of General Practice, and national Democratic committeeman from Arkansas.

Elected vice-president of the A.M.A. was Carl H. Gellenthien, M.D., of Valmora, New Mexico. Dr. Gellenthien succeeds Leo F. Schiff, Plattsburgh, New York. He took office immediately.

George F. Lull, M.D., Chicago, secretary and general manager of the A.M.A., was re-elected

(Continued on p. 312)

SCIENTIFIC PROGRAM

* * * *

THE LEWIS ROGERS MEMORIAL MEETING

COLUMBIA AUDITORIUM

* * * *

THE KENTUCKY STATE MEDICAL ASSOCIATION

Louisville, Kentucky

September 22, 23, 24, 1953

Tuesday, September 22

- 9:00 Opening Ceremonies
- 9:30 "Recent Concepts of Prophylaxis in Anterior Poliomyelitis"
J. Edmund Bickel, Owensboro, Kentucky
- 10:00 Visit the Exhibits
- 10:30 "How Antibiotics Work"
George T. Harrell, Winston-Salem, North Carolina
- 11:00 Oration in Surgery
Douglas E. Scott, Lexington, Kentucky
- 12:00 President's Luncheon
Edward J. McCormick, Toledo, Ohio
- 2:00 "Differential Diagnosis of Jaundice"
Franklin B. Moosnick, Lexington, Kentucky
- 2:30 "Indications for Surgery in the Jaundiced Patient"
Robert Zollinger, Columbus, Ohio
- 3:00 Visit the Exhibits
- 3:30 "The Management of the Hypertensive Patient"
J. Murray Kinsman, Louisville, Kentucky
- 4:00 "The Indications and Contra-indications of Tonsillectomy"
Harold E. Harris, Cleveland, Ohio
- 4:30 Adjournment

Wednesday, September 23

- 8:30 Visit the Exhibits
- 9:00 "Peptic Pathology, the Practitioner's Problem"
Coleman C. Johnston, Lexington, Kentucky
- 9:30 "Bronchial Obstructions: Its Significance in Pulmonary Disease"
Paul H. Holinger, Chicago, Illinois
- 10:00 President's Address
G. Y. Graves, Bowling Green, Kentucky
- 10:30 Visit the Exhibits
- 11:00 "PR Profits"
Leo Brown, Chicago, Illinois
- 11:30 Oration in Medicine
Paul Simpson, Covington, Kentucky

- 12:00 Luncheon, Kentucky Chapter of American College of Chest Physicians
- 2:00 "Athletic Injuries"
O. B. Murphy, Lexington, Kentucky
- 2:30 "Anesthesia for the Patient in Shock"
S. S. Clark, Louisville, Kentucky
- 3:00 Visit the Exhibits
- 3:30 "Chest Injuries"
R. W. Robertson, Paducah, Kentucky
- 4:00 "Fractures of Spine and Pelvis"
S. H. Flowers, Middlesboro, Kentucky
- 4:30 Adjournment

Thursday, September 24

- 8:30 Visit the Exhibits
- 9:00 "The Role of the General Practitioner of Modern Medicine"
John J. Rolf, Covington, Kentucky
- 9:30 "The Growing Interdependence of Medicine and Dentistry"
O. B. Coomer, Louisville, Kentucky
- 10:00 "Medical Responsibility in the Commitment of the Mentally Ill"
Frank M. Gaines, Louisville, Kentucky
- 10:30 Visit the Exhibits
- 11:00 "The Legislative Program and Activities of the A.M.A."
C. Joseph Stetler, Chicago, Illinois
- 11:30 "Changing Patterns in Obstetrical Practice"
H. Close Hesseltine, Chicago, Illinois
- 12:00 Luncheon, Industrial Medicine
- 2:00 "Some Problems of Biliary Tract Surgery"
H. Hart Hagan and William H. Hagan, Louisville, Kentucky
- 2:30 "Early Care of the Severe Burn"
William H. Amspacher, Fort Sam Houston, Texas
- 3:00 Visit the Exhibits
- 3:30 "The Rehabilitation of the Hemiplegic Patient"
Donald A. Covalt, New York, New York
- 4:00 "Incidence of Malignancy in Younger Age Groups"
Malcolm Barnes, Louisville, Kentucky
- 4:30 Adjournment

DR. MARTIN DEFEATS DR. ROBINS IN AMA PRESIDENTIAL RACE

(Continued from p. 310)

to that post as were the following: J. J. Moore, M. D., Chicago, treasurer; James R. Reuling, M. D., Bayside, New York, speaker of the House of Delegates; E. Vincent Askey, M.D., Los Angeles, vice speaker of the House; Edwin S. Hamilton, M. D., Kankakee, Illinois, and Gunnar Gundersen, M. D., LaCrosse, Wisconsin, member of the Board of Trustees.

Julian P. Price, M.D., Florence, South Carolina, who participated in the 1953 County Society Officers Conference of the Kentucky State Medical Association, was elected to the A.M.A. Board of Trustees to fill the office vacated by Dr. Martin after his elevation to the office of president-elect.

J. B. Lukins, M.D., Louisville, whose terms on the Judicial Council expired at the New York session, was replaced by George A. Woodhouse, M.D., of Pleasant Hill. Dr. Lukins was appointed to the council, known as the "Supreme Court of Medicine" in 1950, when Elmer L. Henderson, M.D., Louisville, became A.M.A. president.

Dr. Martin was born in Pulaski, Virginia, in 1888. He graduated from Johns Hopkins University School of Medicine in 1916. He completed a tour of duty in World War I and located in Norfolk. He is a diplomate of the American Board of Internal Medicine.

In May, 1942, Dr. Martin re-entered the army and served with the rank of colonel at Percy Jones Hospital, Battle Creek, Michigan. He also saw duty as medical consultant to the Fifth Service Command in 1944, after which he was assigned to the Tenth Army in the Pacific Theatre. Later he became a civilian medical consultant to the Surgeon General of the Army.

Dr. Cummings, KSMA Councilor, Moves to Illinois



John R. Cummings, M.D., Flemingsburg, secretary of the Fleming County Medical Society and member of the Council of the Kentucky State Medical Association, has moved to Frankfort, Illinois.

Dr. Cummings has taken an active interest for years in the affairs of organized medicine and has served on the Council's Budget Committee. He was the first councilor for the new ninth district as set up by the House of Delegates in 1950.

"We regarded Dr. Cummings as one of our more substantial members of the Association. We appreciated his excellent work on the Council and we certainly are going to miss him," Clyde C. Sparks, M.D., Ashland, Chairman of the Council, said in commenting on Dr. Cummings' departure.

KSMA Program to Present Doctors Hesseltine and Harris

H. Close Hesseltine, M.D., Chicago obstetrician and gynecologist, and Harold E. Harris, M. D., Cleveland otolaryngologist, will be guest speakers at the annual meeting of the Kentucky State Medical Association.



Dr. Hesseltine

"Changing Patterns in Obstetrical Practice" will be the subject of Dr. Hesseltine's talk on Thursday morning, September 24. Dr. Harris will present his paper, "Indications and Contra-indications of Tonsillectomy," at the Tuesday afternoon session, September 22.

Dr. Harris is head of the Department of Otolaryngology at the Cleveland Clinic. He is a member of the American Academy of Ophthalmology and Otolaryngology, the American College of Surgeons, and the American College of Allergists, as well as medical associations of both Ohio and Iowa. Born and educated in Iowa, he graduated in 1936 from the State University of Iowa College of Medicine.



Dr. Harris

Another native Iowan, Dr. Hesseltine graduated from the State University of Iowa School of Medicine in 1925. He is professor and secretary of the department of obstetrics and gynecology at the University of Chicago and attending obstetrician and gynecologist of Chicago Lying-in Hospital.

Dr. Hesseltine is a diplomate of the American Board of Obstetrics and Gynecology; and he is a fellow of the Society for Experimental Biology in Medicine and the American Medical Association. In 1951 and 1952 he was a consultant to the Manpower Commission.

AMA Sets Policy on Veterans Care, Ethics, and Osteopathy

Policy actions on veterans medical care, medical ethics, osteopathy, intern training and a wide variety of other subjects were taken by the American Medical Association House of Delegates during the A.M.A.'s 102nd Annual Session in New York City, June 1 to 5.

Unanimous approval was given to a recommendation from the Reference Committee on Insurance and Medical Service that treatment for non-service-connected disabilities should be discontinued by the Veterans Administration except in cases involving tuberculosis, psychiatric or neurological disorders. The committee-approved report stated in part that the medical profession must concern itself with the broad question of federal government participation in a gigantic medical care program in competition with private institutions and whether the cost is a proper burden on the taxpayer, rather than the number of "chiselers" or the efficacy of Veterans Administration administrative skill in such matters.

Eleven resolutions were presented regarding recent newspaper and magazine articles reporting statements attributed to an official spokesman of an allied medical organization. The House adopted a committee report which recommended no action on these resolutions, reaffirmed the A.M.A. principles of ethics, urged the Judicial Council to study suggested revisions concerning billing methods, and deplored this issuance of broad generalizations, ill-advised and poorly prepared statements by anyone that fail to convey the intended meaning.

The Committee for the Study of Relations Between Osteopathy and Medicine received approval of its majority report which recommended that definitive action be deferred until June 1954 so that "the House should have adequate time for its study and that the state associations should have opportunity to express their opinions." It suggested that at that time the House of Delegates be prepared to determine whether (1) osteopathy's classification as "cultist" healing be continued, (2) doctors of medicine should teach in osteopathic schools and (3) whether doctors of medicine relationships with osteopaths should be determined by the several state medical associations.

A resolution on intern training was passed abolishing the rule whereby approval may be withdrawn from an internship program which for two consecutive years fails to obtain at least two-thirds of its slated intern complement. Further study of the Essentials of an Approv-

ed Internship shall be by a committee at least half of whose membership shall not be connected with medical schools or affiliated hospitals.

AMA Attendance Tops Old Record at '53 Meeting in New York

More than 17,500 physicians registered for the 1953 annual meeting of the American Medical Association, June 1 to 5, in New York City, exceeding by 1,500 the previous record attendance.

New Kentucky State Medical Association president, G. Y. Graves, M.D., Bowling Green, along with Kentucky's official delegates Bruce Underwood, M. D., Louisville, and W. Clark Bailey, M.D., Harlan, headed the Kentucky delegation to the annual session which registered a total of 38,500 people.

Dr. Bailey served on the House of Delegates reference committee that considered the reports of the Board of Trustees and the Secretary.

Kentucky physicians registered at the A. M. A. as listed in the A. M. A. Daily Bulletin, convention publication, were:

Paul A. Bryan, Ashland, William H. Bryant, Glasgow, Lawrence A. Davis, Louisville, Lewis Dickinson, Glasgow, W. Reeve Hansen, Louisville, Herbert D. Kerwin, Louisville, Wm. Ray Moore, Louisville, Carlisle Morse, Louisville, Maurice Nataro, Louisville, Irving B. Perlstein, Louisville, B. F. Radmacher, Louisville, Charles T. Rose, Fort Knox, Gracie R. Rowntree, Louisville, Marjorie Rowntree, Louisville, and T. A. Woodson, Louisville.

Clark Bailey, Harlan, Oren A. Beatty, Louisville, Sam H. Black, Louisville, Ray Joseph Carr, Louisville, Misch Casper, Louisville, Robert J. Dancey, Madisonville, G. Y. Graves, Bowling Green, Hugh L. Houston, Murray, V. A. Jackson, Clinton, Champ Ligon, Lexington, Arthur Clayton McCarty, Louisville, Alvin B. Mullen, Waverly Hills, Paul Robinson, Covington, Joseph Schickel, Burkesville, Maher Speevack, Munfordville, Bruce Underwood, Louisville, Norman C. Wheeler, Berea, and Karl D. Winter, Louisville.

Glenn E. Austin, Kenvir, James W. Bruce, Louisville, Marvin R. Batchelor, Virgie, Howell J. Davis, Owensboro, G. Greenfield, Louisville, Michael M. Hall, Campbellsville, Richard T. Hudson, Louisville, Arthur T. Hurst, Louisville, Max P. Jones, Louisville, Maurice Kaufmann, Lexington, Albert E. Leggett, Jr., Louisville, John W. Meredith, Scottsville, Edgar B. Morgan, Louisville, Ethel H. O'Brien, Louisville, Earl P. Oliver, Scottsville, Paul S. Osborne,

Louisville, Carl E. Pieck, Covington, Irvin Rosenbaum, Louisville, Grover B. Sanders, Louisville, Joseph H. Saunders, Lexington, Leonard J. Singleman, Louisville, Ernest A. Terry, Jr., Louisville, Ray G. Wilson, Campbellsville, I. Zapolsky, Paris.

David C. McClure, Fredrick Mayer, and H. Oppenheim of Louisville, and Wm. W. Shepherd, Campbellsville.

Francis Guy Aud, Louisville.

Blue Shield's 26 Millionth Insuree From Louisville Feted

Officers and members of the Kentucky State Medical Association joined Governor Lawrence Wetherby and local and national officers of the Blue Cross-Blue Shield Plans in honoring the 26th millionth person to enroll in the Blue Shield Medical Care Plan at a dinner June 10 at the Seelbach Hotel, Louisville.

William P. Marcum, the 26th millionth subscriber, is a 24-year-old navy veteran who returned recently to his Louisville home following his discharge. Recognition from K.S.M.A. was given by Guthrie Y. Graves, M.D., Bowling Green, president; Bruce Underwood, M.D., Louisville, secretary and general manager; T. O. Meredith, M.D., Harrodsburg, president of the Kentucky Blue Shield board of direc-

tors, who presided; B. B. Baughman, M.D., Frankfort, former board president; and W. Clark Bailey, M.D., Harlan. Principal speaker at the dinner was Oscar O. Miller, M.D., Louisville, a founder of the Kentucky Blue Shield program.

Formal application for the insurance was made by Marcum and accepted June 3 at the House of Delegates meeting of the American Medical Association in New York by Dr. Bailey, K.S.M.A. delegate, who was the second principal in the ceremonies.

Governor Wetherby congratulated Kentucky's physicians on their sponsorship of the plans which he said are "doing much to raise the level of health of our citizens."

Dr. Miller traced the growth of the voluntary medical care insurance movement in Kentucky after the leadership of K.S.M.A. put its weight behind the program. He said the success enjoyed by the Blue Shield Plan was the success of a venture in private enterprise, and it is only in such an atmosphere that medicine can expand and flourish.

Frank Smith, Chicago, national director of the Blue Shield Plan, presented certificates in the Kentucky ceremonies to Marcum, to the Blue Shield Plan of Kentucky, and to W. N. McFadden, manager of the Philip Morris and Company cigarette plant at Louisville where Marcum is employed. The company will pay



Governor Lawrence Wetherby, administrators of the Blue Shield Plan, and its Kentucky sponsors in K.S.M.A. salute progress of the Kentucky Plan at a Louisville celebration June 10, enrolling a Kentuckian as member No. 26,000,000. Left to right are Bruce Underwood, M.D., Louisville, secretary and general manager, K.S.M.A.; D. L. Tynes, Louisville, executive director of the plan; G. Y. Graves, M.D., Bowling Green, president, K.S.M.A.; B. B. Baughman, M.D., Frankfort, K.S.M.A. councilor and former president of the Blue Shield board; the Governor, T. O. Meredith, M.D., Harrodsburg, current board president; O. O. Miller, M.D., Louisville, a founder of the Kentucky plan; Frank Smith, Chicago, national director, who presented the 26 millionth policy to W. P. Marcum, Louisville, at extreme right, and W. N. McFadden, Louisville, manager of the Philip Morris and Co. plant which provided the insurance protection to Marcum as an employee.



Clark Bailey, M.D., Harlan, left, K.S.M.A. delegate, accepts the 26th millionth enrollee in Blue Shield Plan of medical care insurance. Louisville war veteran William Marcum, who makes formal application before the June A.M.A. House of Delegates meeting in New York where he was guest. Behind them are Louis Bauer, M.D., retiring A.M.A. president; Robert L. Novy, M.D., vice-president of the Blue Shield Commission and Michigan delegate; and Elmer Hess, M.D., chairman of the A.M.A. Council on Medical Service. "I am grateful to the Kentucky State Medical Association for making this insurance coverage possible," Marcum told the House.

the cost of the subscription for Marcum while protection for his wife and son will be made available by payroll deduction.

"While the Plan's seven-year expansion from 2,500,000 to 26,000,000 is pretty much of a miracle, there are many more groups to be reached who are still in need of its protection, such as the medically indigent, if the nation is to keep its voluntary insurance and with it the finest medical care in the world," Mr. Smith said.

Others who participated in the recognition were D. Lane Tynes, Louisville, executive director of Blue Cross-Blue Shield Plans of Kentucky, and J. E. Stuart, Cincinnati, chairman of the National Blue Cross Commission.

Nominating Committee Named

W. Vinson Pierce, M.D., Covington, Everett H. Baker, M.D., Louisville, and J. Gant Gaither, M.D., Hopkinsville, have been appointed members of the Nominating Committee, with Dr. Pierce as chairman, for the 1953 meeting of the House of Delegates of the Kentucky State

Medical Association, it was announced by Hugh L. Houston, M.D., speaker of the House.

The committee will meet immediately after the close of the first session of the House of Delegates Monday evening, September 21, to receive nominations from the membership. The committee will make its report at the beginning of the second scientific session at 2 p.m., Tuesday, September 22, Dr. Houston explained.

Districts 12 and 15 Meet Jointly at Cumberland Falls

A joint meeting of the Kentucky State Medical Association twelfth and fifteen councilor districts, called by Carl Norfleet, M.D., Somerset, and Edward Wilson, M.D., Pineville, councilors for the respective districts, was held at Dupont Lodge, Cumberland Falls, June 16.

W. Clark Bailey, M.D., Harlan, past president of K.S.M.A., addressed the meeting following dinner, which was also attended by the wives of physicians. G. Y. Graves, M.D., Bowling Green, K.S.M.A. President, brought greetings from the Association.

In afternoon scientific session preceding dinner, Arthur L. Cooper, M.D., Somerset, discussed "Malignant Melanoma." Irving F. Kanner, M.D., Lexington, representing the Fayette County Medical Society spoke on medical education in Kentucky.

Ky. Surgical Elects Officers, 23 New Fellows

W. Vinson Pierce, M.D., Covington, was elected to succeed E. W. Jackson, M.D., Paducah, as president of the Kentucky Surgical Society, May 16, at the annual meeting of the society at French Lick Springs Hotel, French Lick, Indiana.

Arnold Griswold, M.D., Louisville, was elected vice president and Francis M. Massie, M.D., Lexington, secretary and treasurer. All officers hold office for one year except the secretary, whose term is for three years.

Charles A. Vance, M.D., Lexington, who has been chairman of the society's Council since it was organized has retired from that office, and Pat R. Imes, M. D., Louisville, was elected to succeed him.

Other business included the voting of an assessment of \$10.00 for each member, the proceeds of which will be given to the Ephraim McDowell Shrine. French Lick was chosen for site of 1954 annual meeting.

Daniel C. Elkin of Emory University School of Medicine, Atlanta, was the guest speaker. Other essayists were Harvey Chenault, M.D., and W. H. Pennington, M.D., of Lexington;

Jamse C. Drye, M.D., Louisville; and Edward B. Mersch, M.D., Covington.

Twenty-three surgeons were admitted to the fellowship of the society at the May 16 session, thus bringing the membership to the limit of 100 members. The new members are:

Jesse T. Funk, M.D., Bowling Green; Richard G. Jackson, M.D., Danville; Robert E. Reichert, M.D., Covington; George R. Rodman, M. D., Greenville; Charles C. Rutledge, M.D., Pikeville; Charles B. Wathen, M.D., Owensboro; and Charles R. Yancey, M.D., Hopkinsville.

Harold F. Berg, M.D., Henry S. Collier, M.D., Clyde H. Foshee, M.D., William H. Hagan, M.D., Marvin A. Lucas, M.D., Condict Moore, M.D., Rudolf J. Noer, M.D., George A. Sehlinger, M.D., and Ludwig H. Segerberg, M.D., of Louisville.

John B. Floyd, Jr., M.D., Louis Hamman, Jr., M.D., W. K. Massie, M.D., R. M. Slabaugh, M.D., W. T. Swartz, M.D., Eugene Todd, Jr., M.D., and J. Farra Van Meter, M.D., Lexington.

Council Sets August 1 Deadline for Award Nominations

August 1 will be the last day on which county medical societies or individual members can submit nominations to the headquarters office for the two annual awards of the Kentucky State Medical Association to be voted and presented at the September meeting, it was announced by the K.S.M.A. Council.

The Distinguished Service Medal will be awarded on the basis of contribution to organ-



Officers of the Kentucky Surgical Society which met at French Lick, Indiana, May 16, gather for a picture with the guest speaker, Daniel C. Elkin, M.D., Atlanta, left. Others are Arnold Griswold, M.D., Louisville, vice-president-elect, Francis M. Massie, M.D., Lexington, secretary-treasurer, Charles A. Vance, M.D., Lexington, retiring chairman of the Council, W. Vinson Pierce, M.D., Covington, president-elect, and E. W. Jackson, M.D., Paducah, president.

ized medicine, to community health education, to research, and to teaching; on the basis of individual medical service, and of active military service—for all or one or any combination of these points. Nominations should include reasons clearly stated.

The second award will be conferred on a general practitioner and is entitled The Outstanding General Practitioner Award. Its winner will be eligible to be a candidate for the General Practitioner Award of the American Medical Association to be voted and presented at the Clinical Meeting next December.

New KSMA President to Serve National Conference Group

G. Y. Graves, M.D., Bowling Green, new K.S.M.A. president, has been made a member of the Executive Committee of the Conference of Presidents and other officers of state medical associations, Thomas A. O'Brien, M.D., St. Louis, secretary to the committee, announced June 3.

The Conference of Presidents and other officers of state medical associations held its ninth annual meeting Sunday, May 31, in New York, as is its custom, just before the A.M.A. annual meeting gets under way. In addition to Dr. Graves, it was attended by A.M.A. delegates from Kentucky, Bruce Underwood, M.D., Louisville, and Clark Bailey, M.D., Harlan. Hugh L. Houston, M.D., Murray, recent past-president of K.S.M.A., also attended the meeting along with other members.

The purpose of the conference is to familiarize leaders of state medical associations with socio-economic and political problems that are actively associated with the medical profession.

Sixty-Seven Physicians and Guests Attend 7th District Meet

A total attendance of 67 physicians, wives, and guests at a meeting of the Seventh Councilor District at Simpsonville, May 28, has been reported by Branham B. Baughman, M.D., Frankfort, councilor for the district.

Clyde C. Sparks, M.D., Ashland, chairman of the Kentucky State Medical Association Council, addressed the joint dinner meeting, following which ladies retired for a district Woman's Auxiliary meeting, presided over by Mrs. H. V. Stewart, Carrollton, auxiliary district councilor. C. Wyatt Norvell, M.D., New Castle, district president, presided over the scientific and busi-

ness medical meeting which featured papers by Joseph Liebman, M.D., Frankfort; George B. Perrine, M.D., Pewee Valley, and H. V. Stewart, M.D., Carrollton. At the Woman's Auxiliary meeting a talk on auxiliary activities was made by Mrs. Clyde C. Sparks, K.S.M.A. Woman's Auxiliary president-elect.

New district officers elected by the physicians were: Livingston A. Wahle, M.D., Shelbyville, succeeding Dr. Norvell as president; Clarence T. Coleman, M.D., Frankfort, succeeding B. F. Shields, M.D., Shelbyville, as vice-president; and Claude C. Waldrop, M.D., Williamstown, succeeding Smith Gibson, M.D., Williamstown, as secretary. The Shelby-Oldham County Medical Society acted as host.

Committee Staggers Terms for Ten Councilors to be Elected

A three-man committee appointed by Hugh L. Houston, M.D., Murray, speaker of the House of Delegates, has designated by lot five out of the ten councilor districts in the Kentucky State Medical Association holding elections this year for modification in order to stagger the expiration years and enable the Council to function hereafter with but a one-third annual turnover of its members.

The action is in accordance with a resolution passed by the House of Delegates at the 1952 meeting.

Serving on the committee were W. Clark Easley, M.D., Harlan, Sam Overstreet, M.D., Louisville, and Charles A. Vance, M.D., Lexington. Dr. Bailey, chairman, announced that districts 2, 7, 9 and 13 will elect councilors for two years and district 11 for one year. Councilors elected in districts 1, 3, 4, 12 and 14 will serve out the customary three-year term.

The resolution further provides that all councilors shall be elected thereafter for full three-year terms, as contained in the By-laws, and that councilors elected for the modified terms shall then be eligible for re-election on a three-year basis.

County Society Aids Nurse Study

Its second annual scholarship for nurse training was awarded last month by the Logan County Medical Society, it was announced by Walter R. Byrne, M.D., secretary.

The annual award is for a three-year course in any approved school of nursing and is made to a graduate of a Logan County high school. The winner of the 1952 scholarship has completed her first year with an excellent record, Dr. Byrne has reported.

Plans for Distribution of Gamma Globulin Outlined

All requests for gamma globulin by physicians shall be made to local health departments. The responsibility for distribution of gamma globulin for poliomyelitis, measles, and infectious hepatitis prophylaxis has been invested solely in the State Health Commissioner by the Office of Defense Mobilization, central allocating authority for the nation's blood program.

The American Red Cross and the National Foundation for Infantile Paralysis have turned over their supplies of gamma globulin to this national allocating agency.

Official request forms must be complete in detail before the local health departments can distribute gamma globulin; for the supply is extremely limited, and national policies require that accurate records be kept of its distribution. The records will also aid in a nationwide evaluation of gamma globulin as a prophylaxis against poliomyelitis.

Kentucky's basic allotment of 2,400 doses for poliomyelitis is based upon the average number of cases reported annually for the five-year period 1947-1951. The allocation for measles and infectious hepatitis is also limited and is not to exceed 1.5 times the median number of cases during 1947-1951.

The criteria for use of gamma globulin as established jointly by the Advisory Commit-

tee on Pediatrics of the Kentucky State Medical Association under chairmanship of W. W. Nicholson, M.D., and by the Kentucky State Department of Health recommends:

(1) Gamma globulin for poliomyelitis shall be given to family contacts of clinically diagnosed cases under the age of 30 and pregnant women of any age.

(2) Gamma globulin for measles shall be given only to contacts under seven years of age.

(3) Gamma globulin for German measles shall be given only to susceptible women in their first trimester of pregnancy.

(4) Gamma globulin for infectious hepatitis shall be given only to family contacts **over** the age of 16.

Upon recommendation of the allocating authority no gamma globulin should be given for poliomyelitis contacts unless three of the six diagnostic criteria listed on the official request form are evidenced by the patient.

In cases of emergency and under exceptional circumstances, physicians may be authorized by the State Health Commissioner to give gamma globulin to other than family contacts of poliomyelitis, but a supplemental allocation must be made by the Office of Defense Mobilization.

New KSMA Members Welcomed

Jefferson—B. M. Drake, Louisville.

Marshall—Harold L. King, Benton.



Members of K.S.M.A. attended the recent annual meeting of the Kentucky State Dental Association at Louisville. Posing on the right at the President's luncheon are the late R. Haynes Barr, M.D., who was K.S.M.A. president, and J. Duffy Hancock, M.D., Louisville, president-elect, with their dental colleagues, reading from the left, O. B. Coomer, D.D.S., Louisville, then president of K.S.D.A.; O. W. Branchorts, D.D.S., St. Louis, president of the American Dental Association; Ernest Granger, D.D.S., Mt. Vernon, N. Y., guest essayist; and O. M. Lyon, D.D.S., Morehead, K.S.D.A. then president-elect.

Dr. W. L. Riker Addresses 28 MD's at 2nd District Meeting

Twenty-eight physicians attended a meeting of the Second Councilor District in Henderson, May 21 to hear William L. Riker, M.D., of Chicago discuss "Newer Concepts in Pediatric Surgery," it has been reported by Walter L. O'Nan, M.D., district councilor.

Dr. Riker is associate in surgery at Children's Memorial Hospital in Chicago. Presiding officer for the meeting was Russell A. Scott, M.D., Russellville. The host society for the meeting was the Henderson County Medical Society. Six counties were represented at the meeting.

Following the scientific program, new district officers were elected as follows: James E. Hix, M.D., Owensboro, president, succeeding R. A. Scott, M.D., Dixon, and Alfred W. Andreason, M.D., Morganfield, secretary, succeeding R. H. English, Henderson.

Auxiliary Gives \$10,000 to AMEF

The Woman's Auxiliary to the American Medical Association presented Elmer L. Henderson, M.D., Louisville, president of the American Medical Education Foundation, a check for \$10,000 at its annual meeting in New York, June 3.

The money was presented by the Auxiliary president, Mrs. Ralph B. Eusden, Long Beach, California. This gift raises the total amount contributed to the Fund to \$31,500.

Dr. Gaines Announces Appointments at Eastern Hospital

Frank M. Gaines, Jr., M.D., state commissioner of mental health, Louisville, has announced the appointment of Logan Gragg, M.D., Lexington, as clinical director and Charles D. Feuss, Jr., M.D., Lexington, as superintendent at Eastern State Hospital.

Dr. Gragg, 36, has been staff physician and psychiatrist since 1949 with the Veterans Administration Hospital at Lexington, where he previously engaged in private practice. He earned his medical degree at the University of Louisville School of Medicine in 1941. After his internship he served as a captain in the Marine Corps from 1942 to 1945, which was followed by a two-year residency in medicine at Louisville General Hospital.

Dr. Feuss, 31, was formerly senior psychiatric resident at the V. A. Hospital. Earlier, he

held a residency in psychiatry at Longview State Hospital, Cincinnati. He also served his internship at Cincinnati after graduation in 1946 from Vanderbilt University School of Medicine, Nashville.

Twenty Anesthesiologists Meet

Twenty anesthesiologists attended the spring meeting of the Kentucky Society of Anesthesiologists at French Lick, Indiana, Saturday and Sunday, May 16 and 17, according to Stephen R. Ellis, M.D., Louisville, president.

C. R. Stephen, M.D., head of the department of anesthesiology at Duke University, Durham, North Carolina, was guest speaker. His subject was "Induced Hypotension During Surgery." Robert P. Bergner, M.D., delegate to the national society, gave a paper on "Trichloroethylene Used for Dental Anesthesia."

Offer Heart Course at Charleston

A one-day graduate course in cardiac therapy will be presented at Charleston, West Virginia, September 16, under sponsorship of the Kanawha Medical Society, a fact of particular interest to Eastern Kentucky physicians.

Members of the faculty will include Charles P. Bailey, M.D., Philadelphia, Ralph E. Dolkart, M.D., Chicago, R. W. Kissane, M.D., Columbus, Ohio, Edward S. Orgain, M.D., Durham, North Carolina, and Francis F. Rosenbaum, M.D., Milwaukee. The course will be informal and illustrated by lantern slides. Additional information may be obtained from I. E. Buff, M.D., 310 Atlas Building, Charleston 1, West Virginia.

The Tennessee Valley Medical Assembly will hold a meeting at the Read House in Chattanooga, Tennessee, on September 28 and 29.

The Department of Otolaryngology, University of Illinois College of Medicine, has announced its Annual Assembly in Otolaryngology, divided into two sections: Basic Section, September 21 to 26, devoted to surgical anatomy, cadaver dissection, and histopathology under M. F. Snitman, M.D., and the Clinical Session, September 28 to October 3, consisting of lectures and panel discussions, with group participation of otolaryngological problems and trends in management. Information may be had by writing to the Department at 1853 West Polk Street, Chicago 12.

News Items

James Webber Baird, M. D., 87, Sadieville, retired June 10, after 64 years of medical practice. Beginning his practice in Harrison County, his home, in 1889, he moved to Scott County late in 1890 and has lived in Sadieville since. He has been a surgeon since 1906 for the New Orleans and Texas Pacific Railroad. Dr. Baird was third in his class at the Cincinnati College of Medicine in 1889.

Lewis B. Clayton, M.D., Corbin, moved to Virgie in June for the practice of his profession. Born in New Jersey, he graduated from the University of Tennessee College of Medicine in 1948, interned at Philadelphia Naval Hospital and came to Harlan in 1950 and later to Corbin.

J. Duffy Hancock, M.D., Louisville, president-elect of K.S.M.A., sailed June 20, with his wife and daughter, Johanna, for a two months tour of Europe. The family will visit Ireland, England, Holland, France, Switzerland, Italy, Germany, and Austria. In Ireland, Dr. Hancock will attend the meeting of the Irish Medical Association. The trip will be a graduation gift to Johanna, and a special feature will be a motor trip over the same route taken by her father in World War II when as commanding officer of the 106th Evacuating Hospital he was taken prisoner for one day.

James D. Stewart, M.D., of Owensboro on May 1, received a medal award for 50 years of service in medicine at a meeting of the Daviess County Medical Society, Owensboro. A graduate in 1903 of the Hospital College of Medicine at Louisville, he began his practice in Ohio County, where he remained for 17 years, moving to Daviess County in 1920 and to Owensboro in 1941.

Claude McHargue, M.D., will move July 1, to Monticello where he will be associated with **John W. Simmons, M.D.**, in the practice of medicine. Dr. McHargue graduated in 1952 from the University of Louisville School of Medicine and just completed his internship at St. Anthony Hospital, Louisville.

Roy G. McKee, M.D., Wheelwright has established an office in Winchester for the practice of his profession. Born in Missouri, Dr. McKee graduated in 1949 from the University of Louisville School of Medicine and interned at Louisville General Hospital. Since 1950 he has been located in Kansas City, returning this year to Wheelwright.

Donald L. Martin, M.D., 29, Louisville, a surgeon at Veterans Hospital, was recently appointed to an assignment as medical missionary in the Belgian Congo by the American Baptist Foreign Mission Society. A graduate of the University of Louisville School of Medicine in 1947, he was a navy medical officer for two years and then spent two years at Philadelphia General Hospital. He has just completed his first year as resident surgeon with the V. A. In the navy he served as chaplain as well as physician aboard a repair ship, having studied theology. Dr. Martin, his wife, and two children will remain here for another 18 months before going to Africa.

Charles L. Roach, M.D., Lexington, moved to Pineville in June for the practice of his profession. Dr. Roach, a native Kentuckian, graduated in 1951 from the University of Louisville School of Medicine, after which he went to Lexington for an internship at St. Joseph's Hospital.

John W. McGowan, M.D., Lexington, located in May in Hopkinsville. Born in Kentucky, he earned his medical degree in 1948 at the University of Louisville School of Medicine and then interned at General Hospital, Springfield, Ohio. Since 1950 he has been at St. Joseph Hospital.

A "Doctor Walton Day" is being planned as a feature of the sixth annual Muhlenberg County Fair late in July in honor of **John Porter Walton, M.D.**, who has been engaged in the general practice of medicine at Central City since 1906, when he graduated from the Louisville Hospital College of Medicine.

County Society Reports

JEFFERSON

The Jefferson County Medical Society met on March 16, 1953, at the Seelbach Hotel. There were 90 members present for dinner and 12 to 15 additional for the meeting.

The meeting was called to order by the president, Dr. Arthur T. Hurst.

Dr. W. M. Ewing, chairman of the polio Advisory Committee, introduced Dr. Drake from the State Board of Health, who gave a report about the distribution and procurement of gamma globulin and answered questions about its use.

Dr. David Cox, chairman, Program Committee, gave the results of a questionnaire sent members about type of program preferred, meeting place, night of week, etc. He had canvassed the hospitals and reported their willingness to make their auditoriums available to the society for meetings as well as dinner in most instances, on a rotating plan. No action was taken on these suggestions.

Dr. J. A. Bowen, chairman, Executive Committee, reported action taken by the committee (1) opposing any addition to the By-laws concerning attendance; (2) approving unanimously the man selected by the Educational and Planning Committee to be offered the position of executive secretary.

The following new members were elected: Dr. Nathan Zimmerman, Dr. Edward Arthur Rose, and Dr. Maurice A. Perellis.

Dr. J. Murray Kinsman made a detailed statement on the present status of medical education in the state, outlining the past and present positions of the Kentucky State Medical Association and the Fayette County Medical Society and the growing sentiment in Lexington favoring a second medical school at the University of Kentucky. He emphasized the tremendous pressure being brought to bear on the legislative advisory committee from the proponents of the plan and the fact that the other side of the question has not been heard. Dr. Kinsman questioned whether two medical schools could be supported in Kentucky and whether the number of qualified applicants were sufficient for another school. He stated that if the University of Louisville School of Medicine could graduate 25 more students a year they could supply the major part of the state's needs.

There was a discussion by Doctors Shaw, Douglas, Hurst, Cox, Bell, Garon, Drye, Shiflett, and Archer. It was moved that the presi-

dent appoint a very large representative committee from the society to draw up a resolution incorporating the essential ideas expressed by Dr. Kinsman and that it be presented to the society for approval and thence to the committee studying the feasibility of a second medical school. The motion carried.

Specific suggestions of ways in which individuals could assist in this plan were offered by Doctors Malcolm Barnes, Rowntree, Cohen, Archer, and Charles Bryant.

It was moved and the motion carried that the Southern Medical Association be invited to meet in Louisville in 1955.

After the business meeting Dr. Rudolf J. Noer, professor and head of the Department of Surgery, University of Louisville School of Medicine, presented a paper on "Intestinal Obstruction." There was discussion by Drs. J. C. Drye, Charles Maguire, H. C. Lawson, William Bizot, E. L. Shiflett, G. M. Peterson.

John S. Llewellyn, M. D., Secretary

JEFFERSON

The Jefferson County Medical Society met on April 20, 1953, at the Seelbach Hotel. Sixty-five members were present for dinner and 16 additional for the meeting.

The meeting was called to order by the president, Dr. Arthur T. Hurst.

Dr. R. J. Alberhasky read resolutions of the Necrology Committee upon the deaths of Dr. Frieda K. Berresheim, Dr. Otter R. Reesor, and Dr. Robert Wedekind, and members stood in tribute.

Dr. David Cox announced the employment of Mr. Jean Close as executive secretary beginning May 1, 1953. He also announced that the Society's next meeting would be at the Kentucky Hotel.

Dr. Bernard Schneider read a report of the Fetal and Maternal Mortality Committee proposing an amendment to the By-laws of the Society whereby this committee would become a standing committee instead of a special committee and moved that this amendment be tabled in accordance with the provisions of the By-laws for consideration at the next meeting. Carried.

The following new members were elected: Israel Diamond, M.D., and B. M. Drake, M.D., active.

John M. Frankel, D.M.D., Dewey W. Raley, D.D.S., Elvin A. Welsh, D.M.D., and William E. Yancey, M.D., associate.

The Secretary read a communication from Dr. Samuel J. Anderson, chairman, School Health Committee, requesting that the same plan be followed this year as last in examining school children; i.e., that private physicians do the examination for a basic fee of \$2.00, as approved by the Society last year.

The Secretary read a letter from J. P. Sanford, executive secretary, K.S.M.A., calling attention to the two awards which the Association will make at the annual meeting September 22 to 24.

The scientific program was a symposium on preparation for care of mass casualties. Speakers and their subjects were: Charles F. Wood, M.D., "First Aid"; James C. Drye, M.D., "Triage"; Charles H. Maguire, M.D., "Lacerations and Penetrating Wounds"; and William H. Bizot, M.D., "Blast and Concussion Injuries." Doctors Shaw, Ritchie, Heitger, and Luhr participated in the ensuing discussion.

John S. Llewellyn, M.D., Secretary

McCRACKEN

The McCracken County Medical Society met at the Ritz Hotel on May 27, 1953. The meeting was called to order by Dr. George H. Widener.

The scientific program was conducted by Doctors Herbert Clay and Rudolph Noer of the University of Louisville School of Medicine. Medical and surgical aspects of thyroid disease were discussed.

Letters of application to the Society were read from Doctors Spalding, England, and Stryker. They were referred to the Board of Censors.

All communications were read.

It was moved that the McCracken County Medical Society be recorded as approving the resolution adopted by the Paducah Exchange Club which urged the Federal Communications Commission to expedite action on awarding a TV transmitter franchise for the city of Paducah. Carried.

It was moved that if a representative opposing the proposed medical school in Lexington attend the meeting on the issue suggested by the Public Relations Committee of Fayette County Medical Society, the members of this society will encourage such a meeting to hear both sides of the question and will attend. Carried.

After discussion the idea proposed of a new collecting agency in Paducah was approved.

Discussion was reopened on the Distinguished Service and General Practitioner awards. It

was agreed that a committee would select candidates and submit the names to a called meeting of the Society for final approval.

A letter was read from the Civil Defense Committee relative to the appointment of a committee to participate in Civil Defense planning. This was referred to our local Emergency Medical Service Committee for further investigation and selection of a committee.

M. W. Fowler, Jr., M.D., Secretary

SCOTT

The Scott County Medical Society met on June 4, 1953 at the John Graves Ford Memorial Hospital in Georgetown. The following members were present:

Doctors F. W. Wilt, W. S. Allphin, P. H. Crutchfield, E. C. Barlow, H. G. Wells, and H. V. Johnson.

Dr. Woolfolk Barrow of Lexington was the guest speaker for the day.

After approval of the minutes the meeting was turned over to Dr. Barrow who gave a paper on hernia of the abdominal wall with pictures describing the operation.

Dr. Chester Lewis' application for membership in the Scott County Society was read and turned over to the censors.

H. V. Johnson, Secretary

UNION

The Union County Medico-Dental Society met Tuesday, May 19, 1953 at 7:30 p.m. at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M.D., president.

The secretary reported he had attended the funeral of the late R. Haynes Barr, M.D., state president, as the representative from the society. The secretary said he would also represent the society at the district meeting in Henderson.

The society instructed the secretary to send a check for the amount collected from the members to the R. Haynes Barr Memorial Library to be established in the Owensboro health center.

Speaker for the evening was Harry K. Dillard, M.D., director of school health services at the Kentucky State Department of Health. He spoke on the background of school services and stated a revision of the school health code was needed. He stated he is now formulating a new code that could become enforceable. To this end he is seeking information and guidance from the various societies in

order to set up a workable code.

Dr. Dillard read a paper on ideas of future health services for school children including first aid rooms in each school properly equipped to care for emergency cases until proper medical assistance is available. Members of the society joined in a discussion of the paper.

A. W. Andreasen, M.D., Secretary-Treasurer

EARLY FUNCTION IN THE TREATMENT OF FRACTURES OF THE UPPER EXTREMITY

(Continued from page 301)

return to a gainful occupation for several more months.

Summary

Absolute immobilization, anatomical reduction, and the utilization of contact compression at the fracture site are the factors most important in producing rapid bone healing. All of these are accomplished by functional fixation which is obtained when a fracture is so splinted internally that external fixation is not required and activity is permitted. In the shafts of long bones this seems best accomplished by the combination of an intramedullary pin to prevent angulation and a slotted plate to prevent torsion at the fracture site. Contact compression in the upper extremity is enhanced by active use of the muscles thus preventing atrophy and maintaining normal muscle tone.

Functional fixation of the humerus is rarely indicated unless it is combined with fractures of the forearm on the same side. Fractures of the radius and ulna are admirably suited to this form of fixation. Much post-traumatic stiffness is prevented, hospitalization reduced, and early re-occupation made possible. In selected cases, intramedullary fixation of the lower third of the radius is useful. Functional fixation of the metacarpals and phalanges is far from adequate, but in selected cases it is effective in preserving good hand function.

Conclusions

Rigid fixation of long bone fractures by intramedullary pinning and contact plate application utilizes the compression factor in healing, which in the cases presented shortened the clinical healing time as much as 50 per cent. In addition post-traumatic stiffness was prevented by functional use and obviated the need for prolonged rehabilitation. However, this form of treatment is in the formative stage and should be elected with caution,

since a lack of familiarity with the peculiar hazards of intramedullary nailing can produce results which could discredit a method which we feel has real merit.

BIBLIOGRAPHY

Charnley, J. C. Positive pressure in arthrodesis of the knee joint. *Journal of Bone and Joint Surgery*, 30-B; 478-489; 1948.

Eggers, G. W. N.; Shindler, T. O.; Pomerat, C. M. The influence of the contact compression factor on osteogenesis in surgical fractures. *Journal of Bone and Joint Surgery*, 31-A; 693-715; 1949.

Key, J. A. *Southern Medical Journal*, 25; 909; 1932.

Key, J. A. *Southern Medical Journal*, 30; 574; 1937.

Murray, C. R. Primary operative fixation in fractures of long bones in adults. *American Journal of Surgery*, 51; 739-747 March 1941.

Urist M. R.; McLean, F. C. *Journal of Bone and Joint Surgery*, 23; Page one, 1941. Calcification and ossification.

Watson-Jones, R.; *Fractures and Joint Injuries*. Third Edition 1943. Vol. One.

FACILITATING THE EMBRYO PHYSICIAN'S TRANSITION

(Continued from page 305)

demonstrations and lectures by famous men, regular delegate sessions, and many committee meetings. The most important committees at present are those on internships, medical education, and selective service. These committees have permanent members and poll student opinion throughout the year.

Between conventions the organization is directed by the executive council, consisting of the president, vice-president, treasurer, and seven elected executive councilors. Currently these offices are filled by students from all parts of the nation. These ten also handle the arrangements and program for the annual House of Delegates session.

Between sessions the majority of activities are, of course, on the local level. Most schools have regularly scheduled meetings with speakers engaged and movies shown. Here is the golden opportunity to present to students those things not taught in rigid medical school curricula; ethics, insurance, income tax, and office management are some favorite meeting topics. Scientific subjects are often brought to these meetings, and many well known and honored men have addressed the S.A.M.A. chapters.

To sum it all up, the Student American Medical Association is a recognized group representing the majority of the medical students in the nation, started and run by medical students with the sole purpose of aiding in the education and betterment of the medical students. Judging from the results so far, it will accomplish much of its purpose.

In Memoriam

RESOLUTIONS ON THE PASSING OF R. HAYNES BARR, M.D.

From the Council of K.S.M.A.

WHEREAS, the Heavenly Father in His infinite wisdom did see fit to call from our midst R. Haynes Barr, M.D., of Owensboro, Kentucky, on May 5, 1953, and

WHEREAS, Doctor Barr contributed immeasurably to the life of his community, the commonwealth, and the nation by lending his tireless efforts and his aggressive, astute, mature leadership to widely diversified spheres of activity as exemplified by his service as president of the Owensboro Boy Scout Council, Owensboro Chamber of Commerce, Daviess County Board of Health, Owensboro Board of Education, Western Kentucky Reserve Officers Association, and numerous other organizations and his much decorated field service as an officer and physician in the Army of the United States, and

WHEREAS, the Kentucky State Medical Association owes a particular debt of gratitude to Doctor Barr for the honor and distinction which he brought to the profession and the Association as a practicing physician, an unwavering supporter of good medical care for all the people, and as an unusually capable participant in Association affairs which led him to its presidency, in which capacity he distinguished himself.

THEREFORE, BE IT RESOLVED that the Council of the Kentucky State Medical Association does gratefully acknowledge and affirm its deep appreciation for Doctor Barr's unsparing sacrifice of himself and his everlasting gifts to his fellow-man, and

BE IT FURTHER RESOLVED that the resolution of the Council of the Kentucky State Medical Association be made a part of its permanent record and that a copy be sent to Mrs. Helen Barr of Owensboro, Kentucky, the bereaved widow, assuring her of our most sincere sympathy in the great loss that the entire commonwealth shares with her.

SIGNED:

Clyde S. Sparks, M.D., Chairman
Bruce Underwood, M.D., Secretary
and General Manager

From the Board of Kentucky Hospital Association

WHEREAS, in the untimely passing of Dr. Robert Haynes Barr of Owensboro, Kentucky, on May 5, 1953, not only has Daviess County and the entire state of Kentucky, but also has the nation suffered an irreparable loss, and

WHEREAS, Dr. Barr was very unselfishly active in working for the health of our people, serving as president of the Kentucky State Medical Association at the time of his death and having been very active in developing the state-wide Blue Shield, and active in Boy Scouts' endeavors, as well as being president of his local Chamber of Commerce, and

WHEREAS, the Kentucky State Hospital Association, through its Board of Directors, desires to acknowledge the wonderful contributions Dr. Barr made toward the advancement of the hospital program in Kentucky.

THEREFORE, BE IT RESOLVED that the Kentucky State Hospital Association hereby records its most sincere appreciation for the unselfish life Dr. Barr lived, and for his very earnest efforts in behalf of the medical and hospital program of our state—a contribution that has left its never-dying imprint upon the health program of our state, and

FURTHER BE IT RESOLVED that the sincere condolence of the State Hospital Association be made a part of its permanent records and that a copy of this resolution be filed with Dr. Bruce Underwood for the Kentucky State Medical Association, and that a copy be sent to Mrs. Helen Barr of Owensboro, the bereaved widow, assuring her of our most sincere sympathy in the great loss that the whole state shares with her.

SIGNED:

Helena Hughes,
President

* * *

From the Seventh Councilor District, K.S.M.A.

WHEREAS, the Almighty in His infinite wisdom has removed from our midst Dr. R. Haynes Barr, of Owensboro, president of the Kentucky State Medical Association, an efficient and fearless leader of the profession, an outstanding Kentuckian and a capable physician, and

WHEREAS, Dr. Barr served his profession devotedly and unselfishly for a great many years on numerous committees, on the Council, as president-elect, and as president of our Association, and



1. *Dizziness . . . movement is within the head.*
2. *Objective vertigo . . . the environment is in motion.*
3. *Subjective vertigo . . . the patient himself moves in space.*



2



3

TYPES OF VERTIGO:

Their symptomatic relief with Dramamine®

The disagreeable sensations of dizziness which physicians are frequently required to explain to patients have been described by Simonton¹ as varying from a slight sensation of confusion to severe vertigo.

While dizziness or giddiness is classified as a sensation of unsteadiness with a feeling of movement within the head, in vertigo the environment seems to spin (objective vertigo) or the body to revolve in space (subjective vertigo). Labyrinthine disturbances are likely to cause a sensation of rotation. Among the more common causes of dizziness or vertigo, this author lists: Damage to the vestibular nuclei or tracts in the central nervous system, involvement of the vestibular end organs by disease of the ear, Ménière's disease, toxicity of drugs, ocular

vertigo from sudden diplopia, visual field defects, looking down from heights and motion sickness due to hyperactive labyrinthine reaction from riding in vehicles.

Dramamine (brand of dimenhydrinate) has proved effective in treating many of these disturbances. The indications for which Dramamine is now Council accepted include: Motion sickness, the nausea and vomiting associated with pregnancy, certain drugs, electroshock therapy and narcotization; vestibular dysfunction associated with streptomycin therapy; the vertigo of Ménière's syndrome, hypertensive disease and that following fenestration procedures, labyrinthitis and radiation sickness.

1. Simonton, K. M.: The Symptom of Dizziness, Arizona Med. 6:28 (Sept.) 1949.

WHEREAS, the contributions made, both to the welfare of the people of Kentucky and to his profession, will be a lasting monument to his career,

BE IT NOW RESOLVED that the Seventh Councilor District of the Kentucky State Medical Association express its appreciation of his service to the profession and the people and its devotion to the principles for which he worked, and

BE IT FURTHER RESOLVED that a copy of these resolutions be forwarded to Mrs. Barr and to the Editor of the Kentucky State Medical Association.

SIGNED:

C. Wyatt Norvell, M. D., President
B. F. Shields, M. D., Vice-President
Smith Gibson, M. D., Secretary
Branham B. Baughman, M. D., Councilor

* * *

From the Perry County Medical Society

Members of the Perry County Medical Society deeply regret the passing of Dr. R. Haynes Barr of Owensboro, Kentucky, on May 5, 1953. Dr. Barr was loved, honored, and highly respected by every member of the medical profession. We acknowledge and appreciate his leadership, his professional ability, and his interest in maintaining the high and noble place the medical profession has attained in America. Kentucky and the entire medical profession has lost one of the finest and best loved doctors.

THEREFORE WE, the Perry County Medical Society, in regular monthly meeting assembled, do

RESOLVE that in the death of Dr. R. Haynes Barr, the medical profession has lost an efficient and able associate and the state of Kentucky and the nation a hard worker and sincere friend.

We extend our sympathy to his bereaved family. It is ordered that a copy of these resolutions be spread on the minutes of this organization and a copy be furnished the family.

SIGNED:

R. L. Collins, M.D., Secretary
J. R. Greene, M.D., President
C. Dana Snyder, M.D., member

**RESOLUTIONS ON THE PASSING OF
COLEMAN J. McDEVITT, M. D.**

From the Kentucky Obstetrical and Gynecological Society

WHEREAS, Dr. Coleman J. McDevitt, of Murray, Kentucky, a distinguished and able

member of the medical profession departed this life on February 5, 1953; and

WHEREAS, Dr. McDevitt was at the time of his death a member of the Kentucky Obstetrical and Gynecological Society and was currently serving as president of said organization; and

WHEREAS, Dr. McDevitt had, by virtue of his unselfish service, outstanding ability, and devotion to high ideals, brought honor and credit not only to the medical profession, but also to our organization, the Kentucky Obstetrical and Gynecological Society; and

WHEREAS, the death of Dr. McDevitt represents not only an occasion of sorrow and painful loss to his family, but also a profound loss to the medical profession and the Kentucky Obstetrical and Gynecological Society, and to the community which Dr. McDevitt served so ably; NOW, be it

RESOLVED, that the Kentucky Obstetrical and Gynecological Society express its profound sympathy to the bereaved family of Dr. McDevitt in the loss of their husband and father; and that the Kentucky Obstetrical and Gynecological Society make known to the family of Dr. McDevitt and the public at large the enormous loss suffered by Dr. McDevitt's family, the Kentucky Obstetrical and Gynecological Society, the medical profession, and the community served so ably by Dr. McDevitt. And, be it further

RESOLVED, that a copy of these resolutions be spread at large upon the records of the Kentucky Obstetrical and Gynecological Society; that a copy be delivered to the bereaved family of Dr. McDevitt; and that a copy be published in the State Medical Journal and in the Courier-Journal.

Leon Higdon, M.D.

W. O. Johnson, M.D.

Robert C. Bateman, M.D.
Committee

Attest: George McClure, M.D.
Secretary

EARLE E. SMITH, M. D.

Bardwell

1888 - 1953

Dr. Earle E. Smith, 65, died shortly after suffering a coronary occlusion on May 13, 1953, at Bardwell.

Dr. Smith, a native Kentuckian, graduated in 1914 from the University of Tennessee Medical Department. In 1915 he went to Marshall County but practiced mainly in Graves County for 14 years going to Bardwell in 1928. He



It had to be good
to get where it is



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

practiced medicine at Bardwell and Carlisle County until his death practically without interruption although he had a severe bronchial asthma during the past five years.

Dr. Smith was a member of the Carlisle County Medical Society and the Kentucky State Medical Association.

S. B. SNYDER, M. D.

Hazard

1869 - 1953

Dr. S. B. Snyder, 84, died early Friday morning, May 1, 1953, at the Hurst Snyder Hospital, Hazard, Kentucky, after an illness of three years.

A native of Whitley County, Dr. Snyder had an early interest in civil engineering and received a degree in it at a college in Lebanon, Ohio. Later, he studied medicine at the Hospital College of Medicine, Louisville. After graduation he practiced medicine in Jellico, Tennessee, for a number of years and went to Hazard in 1915, where he was associated with the late Dr. A. M. Gross in the general practice of medicine.

In 1930, with the late Dr. Taylor Hurst and his son, Dr. Dana Snyder, he founded the Hurst-Snyder Hospital, in which he was active until forced to retire because of his health.

The University of Louisville honored him in 1950 for his services to mankind. He was a member of the Baptist Church, the Perry County Medical Society, the Kentucky State Medical Association, and the A.M.A.

CHARLES C. DeWITT, M. D.

Louisville

1876 - 1953

Dr. Charles C. DeWitt, 77, of Louisville, died Monday, April 19, 1953, at the Norton Memorial Infirmary two days after an operation for gastric ulcer.

Born at Owensboro in 1876 and a graduate pharmacist, Dr. DeWitt attended the University of Louisville Medical Department while operating a drugstore in Louisville and graduated in 1917. He entered practice at Louisville after service in World War I, later became a pediatrician and continued in active practice until his death.

He was a member of the Jefferson County Medical Society, the Kentucky State Medical Association, and the Southern Medical Association. He belonged to the Parkland Masonic Lodge.

THE BEST IS YET TO BE

(Continued from page 308)

1,000,000 persons in 1943 to more than 26,000,000 today is an achievement of which we should be proud.

The phase "**more** than 26,000,000" should be emphasized. The Blue Shield expansion did not stop June 2. That day was important only as it gave us an opportunity to pause and evaluate the speed of our progress. This progress has been continuously rapid throughout the past 13 or 14 years. The growth in these plans is not now diminishing. Three years ago at this time there were approximately 14,000,000 Blue Shield members. The 90 per cent increase since then gives no indication of any slackening in the American tradition of individual responsibility and voluntary initiative in the field of medical care.

Blue Shield's rapid strides are but a part of the picture. Medicine, insurance men and the people have recognized that the greatest single economic need when illness strikes has been for protection against large unexpected hospitalization costs. Great as the progress of medical and surgical insurance has been, whether through Blue Shield or as reflected in the additional millions covered by commercial carriers, it includes only a fraction of the almost 90,000,000 persons who carry hospital insurance.

The heartening element in Blue Shield's growth lies in its demonstration that Americans everywhere are recognizing that more than a bare minimum of protection against the economic threat of illness can be purchased in the American way. A similar growth of plans offered by commercial companies further shows that there is a place in this new venture for old fashioned competition.

At the same time that they have vied for acceptance by more and more people, these voluntary plans have endeavored to offer wider and fuller coverage for all of the people they serve—at a price that is demonstrably well within the reach of the ordinary citizen. Blue Shield's growth has in part been due to its recognition of this service extension's importance.

While our hat is off to Blue Shield for its great accomplishments, we know that they have just begun. The true success story of the voluntary American way in budgeting illness is still being written. We await with pleasure and interest its further development during the next five or ten years. The best is yet to be.

The JOURNAL *of the*
Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

AUGUST, 1953

NO. 8

OFFICERS OF KENTUCKY STATE MEDICAL ASSOCIATION



GUTHRIE Y. GRAVES, M. D.

President

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

J. DUFFY HANCOCK, M. D.

President-Elect

James Duffy Hancock was born November 1, 1898, in Jeffersonville, Indiana, the son of C. F. C. Hancock, M. D. and Nora Duffy Hancock.

Following his graduation from the University of Louisville in 1921 with the combined degrees of Bachelor of Science and Doctor of Medicine, Dr. Hancock undertook post-graduate surgical training at the New York Post-Graduate Hospital, where he remained until 1923, at which time he entered the private practice of general surgery in Louisville. In 1925 he and Marie Elizabeth Seelbach were married. They have one daughter, Johanna Bertha.

Dr. Hancock's practice was interrupted by World War II in June of 1942, at which time he entered the Army of the U. S. as a major in the medical corps. He served 17 months in Panama as chief of surgical service at Colon Hospital, four months as chief of surgery at Station Hospital, Camp Edwards, Massachusetts, and 16 months as chief of surgical service and commanding officer of the 106th Evacuation Hospital, Third Army in England, France, Germany and Austria.

He was discharged in November, 1945, with the rank of Colonel. His decorations included Battle Stars of Normandy, Northern France, Rhineland and Central Europe, the Meritorious Service Unit Plaque, the French Croix de Guerre, and the Bronze Star. Following his separation from the Armed Forces, Dr. Hancock resumed his current practice of surgery in Louisville.

Among medical honors bestowed on Dr. Hancock have been the Woodcock Medal, presented by the University of Louisville; the E. M. Howard Medal, presented by the Kentucky State Medical Association; the American Cancer Society Award for Distinguished Service, and membership in Alpha Omega Alpha, honorary medical fraternity.

Dr. Hancock is clinical professor of surgery at the University of Louisville School of Medicine. He is a past-president of the Jefferson County Board of Health, a member of the executive committee and a past-president of the Kentucky Division of the American Cancer Society. He is a member of the advisory board of Nazareth College in Louisville, a director of the

Kentucky Physicians Mutual (Blue Shield plan), and a member of the State Advisory Committee to the Selective Service.

Dr. Hancock has been active in the Kentucky State Medical Association and other organizations of the medical profession in numerous capacities. He has been a member of the K.S.M.A. House of Delegates, a vice-president of the Association, and Orator in Surgery. He twice was a Kentucky member of the American Medical Association House of Delegates. He is a past-president of the Jefferson County Medical Society, has served as chairman of the Section on surgery of the Southern Medical Association, and is now president-elect of the Southeastern Surgical Congress.

In addition to these organizations, Dr. Hancock is a fellow of the American College of Surgeons. He also holds memberships in the Kentucky Surgical Society, the Louisville Surgical Society, the Louisville Society of Medicine, the Alumni Association of the New York Post-Graduate Hospital, Phi Chi Medical Fraternity and the Southern Surgical Association. He is a diplomate of the American Board of Surgery. Dr. Hancock is a member of the Pendennis Club, the Louisville Country Club, and the Knights of Columbus.

Vice-Presidents

CHARLES BOWMAN JOHNSON, M. D.

Russell



Dr. Johnson, a native of Pike County, Kentucky, was born in 1899. He received his premedical education at Centre College and his Doctor of Medicine Degree from the University of Louisville in 1928.

Dr. Johnson practiced in the coal fields of Eastern Kentucky for one year and then located at Russell, Kentucky, where he has continued in private practice since 1929. Dr. Johnson has been active in local civic affairs. He is a Senior Fellow of the Southeastern Surgical Congress and is the medical consultant to the Greenup County Health Department.



Philip H. Ramey

PRESIDENT KENTUCKY STATE MEDICAL ASSOCIATION 1953

WILLIAM OSCAR JOHNSON, M. D.**Louisville**

Dr. Johnson was born in 1894. He graduated from Johns Hopkins Medical School in 1920, following which he took surgical training in the Cleveland Clinic until 1927. He is now Professor of Gynecology, and Chairman of the

Combined Departments of Obstetrics and Gynecology at the University of Louisville School of Medicine. He is a fellow of the American College of Surgeons and is certified by the American Board of Obstetrics and Gynecology. He is a member of the consultant staffs at Kentucky Baptist Hospital, Louisville General Hospital, Norton Memorial Infirmary, and St. Joseph's Infirmary in Louisville.

Dr. Johnson has served as president of the Louisville Obstetrical and Gynecological Society, the Kentucky Obstetrical and Gynecological Society, the Southern Gynecological and Obstetrical Society, and is now president of the Central Association of Obstetricians and Gynecologists. He is vice-chairman of district five, American Academy of Obstetricians and Gynecologists, and is a member of the Southern Society of Clinical Surgeons, the Southeastern Surgical Congress, and the Kentucky Surgical Society.

Secretary-Editor**BRUCE UNDERWOOD, M. D.****Louisville**

Dr. Underwood, who in addition to being secretary-editor of the Association is commissioner of health for the Commonwealth of Kentucky, is a native of Louisville. He received his Doctor of Medicine Degree from the University of Louisville School of Medicine, following which he interned at William Beaumont General Hospital at El Paso, Texas. He was engaged in public health work as a county health officer in Kentucky and Florida and in general practice for several years. He is a diplomate of the American Board of Preventive Medicine.



Dr. Underwood has repeatedly expressed his ambition to carry out the responsibilities of his office in the manner desired by the membership. He continues to seek and desire the constructive criticism of the membership in conducting the affairs of his office and wishes to express his appreciation to all members for their support and cooperation during the past five years during which he has been secretary-editor.

Treasurer**WOODFORD B. TROUTMAN, M. D.****Louisville**

Dr. Troutman, who has completed seven full years of service since he was first elected to office at the 1946 Annual Meeting, has earned the deep appreciation of the Association for the efficient service he has rendered it during these years as treasurer. Conducting the financial affairs which come under his domain with wisdom and conservatism, he continues to make a valuable contribution in a modest and self-effacing manner while maintaining a firm hand in keeping with the responsibilities of his office.

Speaker**HUGH L. HOUSTON, M. D.****Murray**

Dr. Houston had the distinction of being the first speaker of the House of Delegates, taking office in 1951. The speaker has a major responsibility for insuring that the deliberations of the Association's governing body proceed in an efficient and smooth manner, while still permitting full consideration of the important matters on which it must make decisions. Dr. Houston has always adhered to his avowal on assuming the speakership that his chief purpose is to see that every delegate is given the opportunity to express fully his views on matters of business that come before the house.

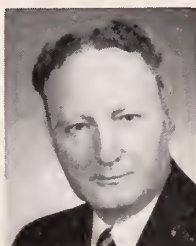


Vice-Speaker**CHARLES A. VANCE, M. D.****Lexington**

In Dr. Vance, the Association has a man uniquely qualified for the office of vice-speaker of the House of Delegates. Because of the standby nature of this office, it requires a man capable of stepping into the parliamentary breach with assurance and a command of presiding officer techniques. Few members of the Association have had the opportunity to develop these attributes so fully as Dr. Vance in his years of service and leadership in the Association and other activities of concern to the medical profession. His wisdom and experience are indeed a source of great assurance to the House of Delegates in his capacity as vice-speaker.

Delegates to A.M.A.**W. CLARK BAILEY, M. D.****Harlan**

Dr. Bailey has served the Association as a delegate to the American Medical Association continuously since 1944 with the exception of the years 1950 and 1951 when he was respectively President-Elect and President.



He was born and reared in Harlan where he now practices medicine. He received his Doctor of Medicine degree from the University of Louisville Medical School in 1926. His graduate training was taken at the Tuberculosis Sanatorium in Louisville, Children's Free and Louisville City Hospitals. He currently is a member of the A.M.A. Committee on Legislation.

BRUCE UNDERWOOD, M. D.**Louisville**

Dr. Underwood has served the Association as delegate to the A.M.A. since 1950. During that period he has served on several committees of the House and has sponsored legislation voted by the House. He was elected to a second term as delegate from Kentucky at the 1951 meeting.

Orator in Medicine**PAUL W. SIMPSON, M. D.****Covington**

Dr. Simpson, born in 1918 in Lexington, was reared in Jessamine County. He graduated from the University of Kentucky and received his Doctor of Medicine degree from the University of Louisville School of Medicine in 1943. Following postgraduate work at Louisville General Hospital, he went on active duty with the U. S. Army in 1945, completing his tour in 1947, at which time he resumed his residency, completing it at Louisville General Hospital.

Dr. Simpson entered private practice of internal medicine in Newport in 1948, moving to Covington the following year. He now practices in Covington and is a member of the staffs of St. Elizabeth Hospital and William Booth Memorial Hospital of that city.

Orator in Surgery**DOUGLAS E. SCOTT, M. D.****Lexington**

Dr. Scott was born and reared in Canada, and graduated from the University of Toronto in 1924. Following his internship and residency at St. Michael's Hospital in Toronto, he came to the United States and for two years did general practice in New York City. He then did postgraduate study on a fellowship in urology on the Mayo Foundation.



In 1931 he received the degree of Master of Science in Urology from the University of Minnesota. For the past twenty years he has been associated in the practice of urology in Lexington. He was certified by the American Board of Urology in 1936. He is a member of the Southeastern Section of the American Urological Association and has made a number of contributions to the scientific literature of his chosen field.

Delegates Listed to KSMA Session Sept. 21, 23, Columbia Hall

The House of Delegates of the Kentucky State Medical Association will hold its first session of the Annual Meeting in the Columbia Auditorium, Monday, September 21, at 7 p.m. Registration starts at 6 p.m. Central Daylight Saving Time.

Officers, the council, and committee chairmen will submit reports and resolutions and new business will be introduced at the opening session. Such business will be assigned by the Speaker to the various reference committees. After considering these matters in meetings Tuesday afternoon, the committees will report back to the House on Wednesday evening.

The House will hold its second session on Wednesday, September 23, at 7 p. m. in the Columbia Auditorium. Again registration will begin at 6 p. m. At this meeting action will be taken on the reports of the reference committees and new officers elected. All members of the Association who are in good standing may attend these sessions.

Delegates certified to the K.S.M.A. headquarters at time of publication by the component county medical societies as their representatives are listed below. Each society is entitled to at least one delegate or to one delegate for each 25 active members or major portion thereof.

DELEGATES - 1953

Adair: N. Allen Mercer, Columbia
Allen: John Meredith, Scottsville
Barren: William C. Wells, Glasgow
Bath: B. Ralph Wilson, Sharpsburg
Bell: C. B. Stacy, Pineville
Bourbon: S. M. Rickman, Paris
Poyd: Paul Holbrook and W. V. Lyon, Ashland
Boyle: Chris S. Jackson, Danville
Bracken: J. M. Stevenson, Brooksville
Breathitt: Price Sewell, Jr., Jackson
Breckinridge: John A. Kincheloe, Hardinsburg
Bullitt: James O. Willoughby, Shepherdsville
Butler: D. G. Miller, Morgantown
Caldwell: Frank T. Linton, Princeton
Calloway: John Quertermous, Murray
Campbell-Kenton: C. Walker Air, Ludlow; O. W. Frickman, Newport; W. V. Pierce, Covington; R. J. Rust, Newport; M. R. Walsh, Covington
Carlisle: T. T. Brackin, Bardwell
Carroll: H. C. Boylen, Carrollton

Carter: J. Watts Stovall, Grayson
Casey: George Sweeney, Liberty
Christian: Harvey B. Stone, Hopkinsville
Clark: Thomas Averitt, Winchester
Clay: W. E. Becknell, Manchester
Clinton: E. A. Barnes, Albany
Crittenden: James O. Nall, Marion
Cumberland: Joseph Schickel, Burkesville
Daviss: Charles B. Wathen and Howell Davis, Owensboro
Elliott: John F. Greene, Sandy Hook
Estill: R. R. Snowden, Irvine
Fayette: Theodore Adams, Louis Bosworth, A. L. Cornish, R. G. Elliott, Carl Fortune, L. E. Hurt, and John Scott, Lexington
Fleming: O. A. Gray, Flemingsburg
Floyd: George Archer, Prestonsburg
Franklin: W. S. Snyder, Frankfort
Fulton: Ward Bushart, Fulton
Garrard: V. G. Kinnaird, Lancaster
Grant: Frederick R. Scroggin, Dry Ridge
Graves: J. E. Albritton, Mayfield
Grayson: C. L. Sherman, Millwood
Green: Jesse M. Dishman, Greensburg
Greenup: C. B. Johnson, Russell
Hardin: C. F. Long, Elizabethtown
Harlan: E. M. Howard and Philip J. Begley, Harlan
Harrison: J. P. Wyles, Cynthia
Hart: Maher Speevack, Munfordville
Henderson: Darrel L. Vaughn, Henderson
Henry: Wyatt Norvell, New Castle
Hickman: V. A. Jackson, Clinton
Hopkins: J. L. Salmon, Madisonville
Jefferson: George F. Archer, C. Victor Ather-ton, Everett H. Baker, Marion F. Beard, Wm. H. Bizot, Wm. A. Blodgett, Glenn W. Bryant, Morgan R. Colbert, Daniel G. Costigan, James B. Douglas, Gordon L. Green, John S. Harter, Robert O. Joplin, William K. Keller, Eugene H. Kremer, Jr., Paul Mapother, Lawrence T. Minish, Jr., Roy H. Moore, Jr., Gracie Rowntree, George B. Sanders, Stanley T. Simmons, David H. Thurman, John M. Townsend, and Karl D. Winter, Louisville
Jessamine: C. A. Neal, Nicholasville
Knot: M. F. Kelly, Hindman
Knox: Daniel Eower, Barbourville
Larue: J. D. Handley, Hodgenville
Laurel: R. E. Pennington, London
Lawrence: G. P. Carter, Louisa
Lee: Mary U. Smith, Beattyville (alternate)
Letcher: Carl Pigman, Whitesburg
Lincoln: M. M. Phillips, Crab Orchard
Livingston: Leonard Champion, Lola
Logan: J. P. Glenn, Russellville
Lyons: J. E. Cotthoff, Kuttawa
McCracken: Robert L. Reeves and James A. * Ward, Paducah
McLean: W. Gerald Edds, Calhoun
Madison: J. Bates Henderson, Berea

Marshall: Joseph R. Miller, Benton
Mason: H. C. Denham, Maysville
Meade: Alfred Glattauer, Brandenburg
Menifee: D. L. Graves, Frenchburg
Mercer: T. O. Meredith, Harrodsburg
Metcalfe: Elgin S. Dunham, Edmonton
Monroe: Ralph Bushong, Tompkinsville
Montgomery: F. K. Sewell, Mt. Sterling
Morgan: R. L. Gullett, West Liberty
Muhlenberg: R. E. Davis, Central City
Nelson: T. G. Forsee, Bardstown
Nicholas: B. E. Reynolds, Carlisle
Ohio: E. P. Stevens, Beaver Dam
Oldham: H. B. Mack, Pewee Valley
Owsley: M. E. Gabbard, Booneville (alternate)
Pendleton: Fred C. Hauck, Falmouth
Perry: W. F. O'Donnell, Hazard
Pike: A. G. Osborne, Pikeville
Fulaski: B. L. Ramsey, Jr., Somerset
Robertson: Perry Overby, Mt. Olivet
Rockcastle: Walker Owens, Mt. Vernon
Rowan: E. D. Blair, Morehead
Russell: M. M. Lawrence, Jamestown
Scott: H. G. Wells, Georgetown
Shelby: L. A. Wahle, Shelbyville
Simpson: L. F. Beasley, Franklin
Spencer: M. H. Skaggs, Taylorsville
Taylor: W. E. Atkinson, Campbellsville
Todd: Ralph D. Lynn, Elkton
Trigg: John Futrell, Cadiz
Trimble: O. James Hurt, Bedford
Union: A. W. Andreasen, Morganfield
Warren: W. R. McCormack, Bowling Green
Washington: Dixie E. Snyder, Springfield
Wayne: Mack Roberts, Monticello
Whitley: William Brown, Corbin
Woodford: George C. Reed, Versailles

Council, Executive Committee Complete Busy Year

The Council, which is the interim governing body of the Association between meetings of the House of Delegates, and its Executive Committee have completed another busy year in handling the Association's business.

For the first time since 1944, the Council has been called upon to elect a president of the Association. Following the passing of R. Haynes Barr, M. D., Owensboro, on May 5, 1953, the Council on May 21, held an election as provided by the By-laws and named G. Y. Graves, M. D., Bowling Green, president. Dr. Graves had been chosen vice president from Western Kentucky for the 1952-53 year by the House of Delegates in 1952.

V. A. Stilley, M. D., Paducah, died on January 20, 1944, while holding the of-

fice of president and was succeeded by the late James H. Pritchett, M. D., of Louisville. President Austin Bell, M. D., died on April 3, 1941, and was succeeded by the late W. E. Gary, M. D. Both men were from Hopkinsville.

As a result of action by the House of Delegates in 1952, the By-laws were amended to increase the size of the Executive Committee from five to seven. The vice chairman of the Council and the president-elect were added. Other members of the Executive Committee include the chairman of the Council (who also serves as chairman of the Executive Committee) the president, and the secretary and general manager of the Association, along with two members of the Council chosen by it.

The 1952 House of Delegates also increased the potential membership of the Council by two when it amended the By-laws to include the Kentucky delegates to the American Medical Association. It so happened that positions held by the 1953 delegates already entitled them to membership on the Council.

The report of the Council, which will be made by Clyde C. Sparks, M. D., Ashland, who has served as chairman for the past two years, will reveal the extent and gravity of the problems the Council has been called on to handle.

The Council has held four meetings during the past year, and at this writing, the Executive Committee has held four sessions. In addition, the Council meets three times during each annual meeting. Attendance has been excellent at the meetings of the Executive Committee and the Council during the past year, which reflects the intense and continuing interest your councilors have in discharging the responsibilities they have accepted.

The membership of the Association can be justifiably proud of the splendid work this group does. If a dollar value could be placed on the contribution in time, effort, and service the members of the Council make to the Association and the people, the amount would not only amaze most members of the Association but would be staggering in size.

The astute leadership, experience, wisdom, and energy demonstrated by members of the Council give us all a great sense of satisfaction in knowing that the affairs of our Association are in conscientious and capable hands.

—:—

COUNCILORS

—:—

First District



J. VERNON PACE
Paducah

Second District



WALTER L. O'NAN
Henderson

Third District



DELMAS M. CLARDY
Hopkinsville

Fourth District



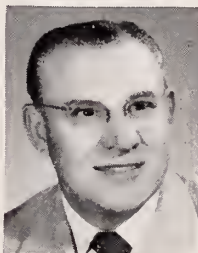
J. I. GREENWELL
New Haven

Fifth District



*R. R. SLUCHER
Buechel

Sixth District



L. O. TOOMEY
Bowling Green

Seventh District



*B. B. BAUGHMAN
Frankfort

Eighth District



EDW. B. MERSCH
Covington

Ninth District



J. R. CUMMINGS
Flemingsburg

Tenth District



*J. F. VAN METER
Lexington

Eleventh District



HUGH MAHAFFEY
Richmond

Twelfth District



CARL NORFLEET
Somerset

Thirteenth District



*C. C. SPARKS, Chm.
Ashland

Fourteenth District



PAUL B. HALL
Paintsville

Fifteenth District



EDWARD WILSON
Pineville

* Member, Executive Committee.

Urges Members to Express Views to Reference Committees

Any member of the Association interested in being heard concerning any of the issues or reports presented to the House of Delegates during the Annual Meeting, is urged to be present when the reference committees convene in the Columbia Auditorium in Louisville at 2 p.m., Central Daylight Saving Time, Tuesday afternoon, September 22, according to Hugh L. Houston, M.D., Murray, speaker of the House.

All annual reports of the Officers, Council, and fifty-odd K.S.M.A. committees will be submitted at the first meeting of the House of Delegates at the Columbia Auditorium, at 7 p. m., Monday, September 21. Registration of the delegates will start at 6 p. m. Dr. Houston said. When the reports are submitted the Speaker will assign them to the various reference committees.

After the reference committees have heard all comments Tuesday afternoon, they will go into executive session and write their reports and recommendations. The chairman of each committee will make the report of his group at the second meeting of the House of Delegates at the Auditorium Wednesday at 7 p. m., C. D.S.T., with registration following the customary procedure of starting one hour earlier.

The committees will meet in the same rooms that have been used the past years. Additional information will be sent members of the committees by mail at a later date. Questions will also be answered during the meeting at Window 4 at the registration desk.

Speaker Houston has named the following to serve on the reference committees and the Credentials Committee at the 1953 session.

REFERENCE COMMITTEE No. 1—Reports of Officers and Councilors.

E. M. Howard, M.D., Harlan, Chairman
Lawrence T. Minish, Jr., M.D., Louisville, Vice-Chairman
C. F. Long, M.D., Elizabethtown
Wendell V. Lyon, M.D., Ashland
William R. McCormack, M.D., Bowling Green

REFERENCE COMMITTEE No. 2—Reports on Medical Care, Medical Education, Hospitals, and related subjects.

W. Vinson Pierce, M.D., Covington, Chairman

Richard G. Elliott, M.D., Lexington, Vice-Chairman

Garnett J. Sweeney, M.D., Liberty

Ward Bushart, M.D., Fulton

Chris Jackson, M.D., Danville

REFERENCE COMMITTEE No. 3—Reports on Legislation and Public Relations.

Richard J. Rust, M.D., Newport, Chairman

Gracie R. Rowntree, M.D., Louisville, Vice-Chairman

Carl Fortune, M.D., Lexington

B. Ralph Wilson, M.D., Sharpsburg

Ralph D. Lynn, M.D., Elkton

REFERENCE COMMITTEE No. 4—Reports on Miscellaneous Business.

T. O. Meredith, M.D., Harrodsburg, Chairman

Wyatt Norvell, M.D., Newcastle, Vice-Chairman

Karl D. Winter, M.D., Louisville

Frank T. Linton, M.D., Princeton

W. B. Atkinson, M.D., Campbellsville

REFERENCE COMMITTEE No. 5—Reports on Miscellaneous Business.

Charles B. Stacy, M.D., Pineville, Chairman

Howell J. Davis, M.D., Owensboro, Vice-Chairman

John C. Quertermous, M.D., Murray

Carl Pigman, M.D., Whitesburg

John W. Scott, M.D., Lexington

CREDENTIALS COMMITTEE

D. G. Miller, Jr., M.D., Morgantown, Chairman

Glenn W. Bryant, M.D., Louisville, Vice-Chairman

H. C. Denham, M.D., Maysville

The Speaker has named the following as alternate committee members:

ALTERNATE COMMITTEE MEMBERS

H. G. Wells, M.D., Georgetown

J. D. Handley, M.D., Hodgenville

George F. Archer, M.D., Louisville

Donald L. Graves, M.D., Frenchburg

Everett H. Baker, M.D., Louisville

A Free Check Room for the convenience of members and guests attending the meeting, will be located between the entrance to the Technical Exhibit Hall and the main foyer in the Columbia Auditorium.

:--: Guest Speakers :--:

GEORGE T. HARRELL, M. D.

Winston-Salem



George T. Harrell M. D., born in 1908, was reared in Ashville, North Carolina and received his Doctor of Medicine degree from Duke University in 1936, where he continued with five postgraduate years in pathology and medicine.

Dr. Harrell is research professor of medicine at Wake Forest College Bowman Gray School of Medicine, having previously served that institution as director of the Department of Internal Medicine. He has been working with the Oak Ridge Institute of Nuclear Studies as chairman of its advisory panel on the peacetime application of atomic energy to medical subjects.

He is chairman of the section on practice of medicine of the Southern Medical Association, a member of the editorial board of the North Carolina Medical Journal, and President of the Southern Society for Clinical Research. He is certified by the American Board of Internal Medicine.

ROBERT M. ZOLLINGER, M. D.

Columbus

Robert M. Zollinger, M. D., was born in Millersport, Ohio, in 1903, and received his Doctor of Medicine degree from Ohio State University in 1927. Dr. Zollinger is chairman and professor, Department of Surgery, Ohio State University and chief of the Surgical Service, Teaching Hospitals, Ohio State University. He was instructor in surgery, 1932 to 1936; associate in surgery, 1936 to 1939; assistant professor in surgery, 1939 to 1946, at the Harvard Medical School.



He is a member of the American Surgical Association, the American College

of Surgeons, the Society of University Surgeons, the Central Surgical Association, the Western Surgical Association, the International Society of Surgeons, and the American Gastroenterological Association. He was certified by the American Board of Surgery in 1938.

He is the author of approximately 100 articles on general surgery, mainly in the field of abdominal surgery, and is the co-author of the Atlas of Surgical Operations with Elliott C. Cutler, M. D.

H. CLOSE HESSELTINE, M. D.

Chicago

H. Close Hesseltine, M. D., born in Wayne County, Iowa, in 1901, was reared and schooled in that state, graduating from the School of Medicine, State University of Iowa in 1925. Following internship and residency at the University Hospital in Iowa



City, he remained on the staff of that institution until 1931, at which time he went to the University of Chicago and the Chicago Lying-In Hospital. He is now professor and secretary of the Department of Obstetrics and Gynecology, University of Chicago, and attending obstetrician and gynecologist of the Chicago Lying-in Hospital.

Dr. Hesseltine is Third District Councilor to the Illinois State Medical Association. He was chairman of the Committee on Health of Women in Industry and the Section on Obstetrics and Gynecology for the A.M.A. from 1942 to 1945. He served as consultant to the Manpower Commission in 1951 and 1952. He is a member of the American Association for the Advancement of Science; the American Gynecological Society; the American Association of Obstetricians, Gynecologists and Abdominal Surgeons; the American Venereal Disease Society; and is a fellow of the Society for Experimental Biology in Medicine. He is a diplomate of the American Board of Obstetrics and Gynecology.

WILLIAM H. AMSPACHER, M. D.**Fort Sam Houston**

the rank of colonel.

William H. Amspacher, M. D., a native of Oklahoma, was born in 1912. Graduating from the University of Oklahoma School of Medicine in 1936, he was immediately commissioned in the U. S. Army with continued service since that time. At the present time he holds

Colonel Amspacher took his graduate surgical training at Halloran Army Hospital, Massachusetts General Hospital, and Baylor University College of Medicine and affiliated hospitals in Houston, Texas. Since June, 1951, he has been Director of the Surgical Research Unit, Brooke Army Hospital, Fort Sam Houston, Texas.

He has been engaged in clinical and experimental work with the various plasma expanders since 1950, including one month treating battle casualties in Korea during the summer of 1952.

PAUL H. HOLINGER, M. D.**Chicago**

Paul H. Holinger, M. D., was born in 1906. He received his Doctor of Medicine degree from Northwestern University School of Medicine in 1933. He is Professor (bronchoesophagology) in the Department of Otolaryngology, University of Illinois College of Medicine.



Dr. Holinger is Senior Attending Bronchoesophagologist, St. Luke's Hospital and the Children's Memorial Hospital of Chicago, and the Research and Educational Hospitals of the University of Illinois College of Medicine. He is Consulting Bronchoesophagologist for the Municipal Tuberculosis Sanitarium of Chicago and the United States Naval Hospital, Great Lakes, Illinois.

He is a fellow of the American Academy of Ophthalmology and Otolaryngology and the American College of Chest Physicians. He is certified by the American Board of Otolaryngology.

LEO BROWN**Chicago**

Mr. Brown, who is executive assistant to the general manager in charge of public relations for the American Medical Association, joined the A.M.A. headquarters staff in Chicago early in 1951. He came to this position from the Medical Society of the State of Pennsylvania

where he had served several years as executive assistant. In that capacity, he directed the American Medical Association's national education campaign in that state.

Following his graduation from State Teachers College at Clarion, Pennsylvania, Mr. Brown spent a number of years in education work. From 1945 to 1947 he was health education secretary for the Erie County Pennsylvania County Health and Tuberculosis Association. In that post he directed the first county-wide mass X-ray survey which covered 120,000 persons in six weeks. His duties took him on lecture tours throughout the state.

HAROLD E. HARRIS, M. D.**Cleveland**

Harold E. Harris, M. D., was born in 1910. He received his Doctor of Medicine degree from the University of Iowa in 1936. He now practices in Cleveland, Ohio.

Dr. Harris is the head of the Department of Otolaryngology at the Cleveland Clinic. He is a member of the American Academy of Ophthalmology and Otolaryngology, the American College of



Surgeons, the American College of Allergists, the American Medical Association and the Iowa and Ohio State Medical Associations.

C. JOSEPH STETLER

Chicago



C. Joseph Stetler is secretary of the American Medical Association Committee on Legislation and the Council on National Emergency Medical Service. For two years before coming to the A.M.A. in 1951 he was director of Legislation and Opinions Service of the War Claims

Commission in Washington, D. C. Prior to holding that position he performed legal functions primarily of a legislative nature with the United States Civil Service Commission, the Social Security Administration, and the Veterans Administration.

Mr. Stetler was born in Wapaconeta, Ohio, in 1917 and attended elementary schools in Fort Wayne and Cleveland, Ohio. He received his bachelor of laws and master of laws degrees from Columbus University, Washington, D. C., in 1938 and 1940 respectively. He is a member of the Bar of both Illinois and the District of Columbia.

O. B. COOMER, D.D.S.

Louisville

O. B. Coomer, D.D.S., is the immediate past president of the Kentucky State Dental Association. He is a past president of the American Academy of Restorative Dentistry, the Louisville District Dental Society and the Kentucky State Board of Dental Examiners.



Dr. Coomer received his education at Berea College, the University of Cincinnati and the University of Louisville, where he was awarded the Doctor of Dental Surgery degree in 1924. He is a fellow of the American College of Dentists and the International College of Dentists. He is former Associate Professor of Operative Dentistry at the University of Louisville and former chairman of the Operative Section of the American Dental Association.

He has appeared as guest lecturer before most of the large dental societies in the United States and Canada and has written numerous papers that have been published in various dental journals.

DONALD A. COVALT, M. D.

New York

Donald A. Covalt, M. D., was born in 1906. He received his Doctor of Medicine Degree from Indiana University in 1933, and engaged in the private practice of medicine in Muncie, Indiana from 1934 until 1942.



Dr. Covalt is now clinical director, New York University Bellevue Medical Center, Institute of Physical Medicine and Rehabilitation; associate professor, New York University College of Medicine; visiting physician in physical medicine and rehabilitation, Third Division, Bellevue Hospital and visiting physician in physical medicine and rehabilitation, University Hospital.

He is a national consultant in rehabilitation to the Veterans Administration, the U. S. Public Health Service, the U. S. Air Force, the Federal Security Agency Office of Vocational Rehabilitation and the William Hodson Community Center, New York University Hospital. He established the first Army Air Force Convalescent Hospital, Miami Beach, Florida, which served as a model for this country and allied countries during World War II, receiving the Legion of Merit for work in convalescence and rehabilitation.

OFFICIAL CALL

ANNUAL MEETING

KENTUCKY STATE MEDICAL ASSOCIATION

To the officers and members of the component county societies of the Kentucky State Medical Association.

Meeting Place

The Annual Meeting of the Kentucky State Medical Association will convene at the Columbia Auditorium, Louisville, Tuesday, Wednesday, and Thursday, September 22-24, 1953. The General Session will be called to order at 9 a.m., Tuesday, September 22.

The House of Delegates

The first regular session of the House of Delegates will convene at 7 p.m., Monday, September 21; the second regular session will begin at 7 p.m. Wednesday, September 23. Both sessions will be held in the Columbia Auditorium.

Registration

The Registration Department will be open in the Columbia Auditorium from 6 p.m. to 8 p.m. on Monday, September 21; from 8 a.m. to 5 p.m. on Tuesday, September 22; from 8 a.m. to 5 p.m., and 6 p.m. to 8 p.m. on Wednesday, September 23; and from 8 a.m. to 5 p.m. on Thursday, September 24.

WOMAN'S AUXILIARY

To The

KENTUCKY STATE MEDICAL ASSOCIATION

Tuesday, September 22, 1953, Brown Hotel

Preconvention Board Breakfast, 9 a.m., South Room; Formal Opening of the Thirty-first Annual Meeting, 1 p.m., South Room.

Wednesday, September 23, Brown Hotel

Morning Session 9 a.m., South Room; Afternoon Session, beginning with a Subscription Luncheon and Style Show, 1 p.m., Crystal Ballroom.

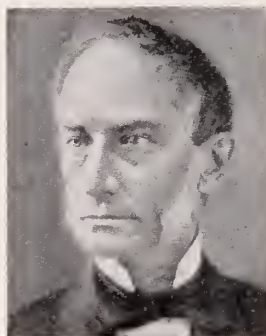
Thursday, September 24, Brown Hotel

Subscription Breakfast and Post-convention Board of Directors Meeting, 9 a.m., South Room.

Registration

The Registration Department of the Woman's Auxiliary will be open in the North Bay of the lobby, Brown Hotel, on Monday, September 21, from 12 Noon to 5 p.m.; Tuesday, September 22, from 9 a.m. to 5 p.m.; Wednesday, September 24, 9 a.m. to 11 a.m.

Meeting Honors 15th President



The 1953 Annual Meeting of the Kentucky State Medical Association will memorialize Lewis Rogers, who served the Association in 1873 as its 15th president and who presided over the 1867 post-war reorganizational meeting at

Louisville, according to Emmet F. Horine, M.D., Brooks, K.S.M.A. historian.

As is customary, each annual meeting memorializes a past president of the Association or some other distinguished Kentucky physician.

Annual Dinner Sept. 24 To Feature Outstanding Attractions

In addition to the usual features that make the Annual Dinner the social high point of the Association year, the 1953 Annual Dinner will present outstanding material in both the serious and entertaining versions, G. Y. Graves, M.D., Bowling Green, K.S.M.A. President, has announced.

The dinner will start at 7:30 p.m., Daylight Saving Time, and will be held in the Crystal Ballroom of the Brown Hotel the evening of Thursday, September 24.

At press time, Dr. Graves said his Committee was not ready for a detailed announcement. However, he said complete information would be sent the membership shortly.

President's Luncheon, September 22, to Feature AMA Chief

The president of the American Medical Association, Edward J. McCormick, M. D., Toledo, will discuss "Firm Ground for Medicine" at the President's Luncheon, 12 o'clock, Tuesday, September 22, in the



Roof Garden of the Brown Hotel.

"Our Committee is delighted to be able to present to the members of our Association a man of such outstanding ability, who has made so many contributions to the people of this country through organized medicine, at this luncheon honoring our distinguished guests," G. Y. Graves, M. D., Bowling Green, K.S.M.A. president said in commenting on the program.

Dr. McCormick, at the age of 61, was inaugurated at the June meeting of the A.M.A. in New York. Among the posts of responsibility he has held with the A.M.A. are membership on Council on Medical Service, membership on the Board of Trustees, Council on Industrial Health, and the Committee on Scientific Exhibits. The A.M.A. leader has also been president of his state and county medical organizations, and has been active in fraternal and civic groups, along with the American Red Cross and the Boy Scouts of America.

Ample time has been scheduled for members attending the Scientific Assembly to get to the Roof Garden for the Luncheon, Dr. Graves said. He urged members to arrange for the purchase of their luncheon tickets for themselves and their guests as early as possible Tuesday.

To Assist With Visual Aids

Visual Aid equipment and assistance for the essayists at the 1953 Scientific Assembly will again be provided by Mr. Frank Shook, who is head of the Department of Visual Aids of the University of Louisville School of Medicine, and members of his staff.

Many compliments were heard on the excellent service given the essayists at

the 1952 meeting by Mr. Shook and his aids. A trained operator is on duty at all times during the scientific sessions to assist the speakers in making the most profitable presentation possible of their material, the Committee on Arrangements stated.

Periods For Visiting Exhibits Increased For '53 Meeting

Recognizing the desire of K.S.M.A. members to spend the maximum amount of time visiting the technical exhibits, the number of intermissions provided at the 1953 annual meeting has been increased from five to six.

The sixth intermission for Thursday afternoon was added through the co-operation of the Committee on Arrangements with the Committee on Technical Exhibits. According to Carlisle Petty, M. D., Louisville, chairman of the latter group, there has been a growing demand by both member and exhibitor that more time be given Thursday afternoon to the exhibitors.

Closing time for the last exhibit has been changed from 1:30 p.m. to 3:30 p.m. as a result. On Tuesday and Wednesday, the exhibit hall will be open from 8 a.m. to 5:30 p.m., and on Thursday from 8:30 a.m. to 3:30 p.m.

Attention of members is also directed to the fact that only those companies are admitted to the hall as exhibitors who have A.M.A. Council approved products. As was pointed out, the committee's highly selective policy in accepting exhibitors, operates to the advantage of both the member and the exhibitor.

Special Phone, WA 6903, Arranged For Convention Use

If you wanted to be reached, while attending the Annual K. S. M. A. Meeting, September 22, 23 and 24, at the Columbia Auditorium, WAbash 6903, is the special convention telephone number you may give those you want to call you.

For the fourth straight year, through special arrangements with the Southern Bell Telephone Company and the Columbia Auditorium, this number has been put aside for this specific use. This line is for incoming calls only.

Program

THE LEWIS ROGERS MEMORIAL MEETING

of the

KENTUCKY STATE MEDICAL ASSOCIATION

SEPTEMBER 22, 23, 24, 1953

LOUISVILLE

MONDAY, SEPTEMBER 21

3:00 P.M.	Council Meeting	Louis XVI Room, Brown Hotel
5:00 P.M.	Council Dinner	Louis XVI Room, Brown Hotel
6:00 P.M.	Registration of House of Delegates.....	Columbia Auditorium
7:00 P.M.	First Meeting of House of Delegates.....	Columbia Auditorium

TUESDAY, SEPTEMBER 22

8:00 A.M.	Registration	Columbia Auditorium
9:00 A.M.	Opening of the General Session.....	Columbia Auditorium
9:30 A.M.	First Scientific Session	Columbia Auditorium
12:00 Noon	President's Luncheon for Distinguished Guests.....	Roof Garden, Brown Hotel
2:00 P.M.	Second Scientific Session.....	Columbia Auditorium
2:00 P.M.	Reference Committee Meetings.....	Columbia Auditorium

WEDNESDAY, SEPTEMBER 23

9:00 A.M.	Third Scientific Session.....	Columbia Auditorium
2:00 P.M.	Fourth Scientific Session.....	Columbia Auditorium
5:00 P.M.	Council Dinner	Louis XVI Room, Brown Hotel
6:00 P.M.	Registration, House of Delegates.....	Columbia Auditorium
7:00 P.M.	Second Meeting, House of Delegates.....	Columbia Auditorium

THURSDAY, SEPTEMBER 23

9:00 A.M.	Fifth Scientific Session.....	Columbia Auditorium
12:00 Noon	Council Luncheon	Parlors A, B, C, Brown Hotel
2:00 P.M.	Sixth Scientific Session.....	Columbia Auditorium
7:30 P.M.	The Annual Banquet.....	Crystal Ballroom, Brown Hotel

A 30-minute intermission has been scheduled during each morning and afternoon Scientific Session for visiting the Scientific and Technical Exhibits.

SCIENTIFIC PROGRAM

* * * *

THE LEWIS ROGERS MEMORIAL MEETING
COLUMBIA AUDITORIUM

* * * *

THE KENTUCKY STATE MEDICAL ASSOCIATION

Louisville, Kentucky

September 22, 23, 24, 1953

Tuesday, September 22

COLUMBIA AUDITORIUM

REGISTRATION

8:00 to 9:00 A.M.

OPENING OF GENERAL SESSION

9:00 A.M.

Call to Order by the President

G. Y. Graves, M.D., Bowling Green

Invocation

Rabbi Martin M. Perley, Brith Sholom
Temple, Louisville

Welcoming Remarks

Arthur T. Hurst, M.D., Louisville, President,
Jefferson County Medical Society

Announcements

J. Duffy Hancock, M.D., Louisville, Presi-
dent-Elect, Kentucky State Medical Asso-
ciation

Tuesday, September 22

FIRST SCIENTIFIC SESSION

9:30 A.M.

G. Y. Graves, M.D., Bowling Green,
Moderator

9:30 Recent Concepts of Prophylaxis in An-
terior Poliomyelitis

J. Edmund Bickel, M.D., Owensboro

10:00 Visit the exhibits

10:30 How Antibiotics Work

George T. Harrell, M.D., Winston-Salem,
N. C.

11:30 ORATION IN SURGERY

Evaluation of Transurethral Prostatic
Surgery

Douglas E. Scott, M.D., Lexington

11:30 Adjournment

PRESIDENT'S LUNCHEON

ROOF GARDEN — BROWN HOTEL

Tuesday, September 22

12:00 Noon

G. Y. Graves, M.D., President, Bowling
Green, Presiding

Invocation

Rev. John McQueen, First Presbyterian
Church, Owensboro

Recognitions

G. Y. Graves, M.D.

Firm Ground for Medicine

Edward J. McCormick, M. D., Toledo, Ohio,
President, American Medical Association

Tuesday, September 22

COLUMBIA AUDITORIUM

SECOND SCIENTIFIC SESSION

2:00 P.M.

Charles B. Johnson, M.D., Russell,
Moderator

2:00 Differential Diagnosis of Jaundice

Franklin B. Moosnick, M.D., Lexington

2:30 Indications for Surgery in the Jaundiced
Patient

Robert Zollinger, M.D., Columbus, Ohio

3:00 Visit the exhibits

3:30 The Growing Interdependence of Medi-
cine and Dentistry

O. B. Coomer, D.D.S., Louisville

4:00 The Indications and Contra-indications
of Tonsillectomy

Harold E. Harris, M.D., Cleveland,
Ohio

4:30 Adjournment

Wednesday, September 23

COLUMBIA AUDITORIUM

REGISTRATION 8:00 to 9:00 A.M.

8:30 Visit the exhibits

THIRD SCIENTIFIC SESSION

9:00 A.M.

W. O. Johnson, M.D., Louisville,
Moderator

9:00 Peptic Pathology, the Practitioner's Problem

Coleman C. Johnston, M.D., Lexington

9:30 Bronchial Obstruction: Its Significance in Pulmonary Disease

Paul H. Holinger, M.D., Chicago,
Illinois

10:00 President's Address

G. Y. Graves, M.D., Bowling Green

10:30 Visit the exhibits

11:00 PR Profits

Leo Brown, Chicago, Illinois

11:30 ORATION IN MEDICINE
Some Aspects of Heart Disease from the Patient's Viewpoint

Paul Simpson, M.D., Covington

12:00 Luncheon—Brown Hotel

Sponsored by Kentucky Chapter, American
College of Chest Physicians

Congenital Anomalies of the Trachea and Bronchi

Paul H. Holinger, M.D., Chicago,
Illinois

Wednesday, September 23

COLUMBIA AUDITORIUM

FOURTH SCIENTIFIC SESSION

2:00 P.M.

J. Duffy Hancock, M.D., Louisville
Moderator

2:00 Athletic Injuries

O. B. Murphy, M.D., Lexington

2:30 Anesthesia for the Patient in Shock

S. S. Clark, M.D., Louisville

3:00 Visit the exhibits

3:30 Chest Injuries

R. W. Robertson, M.D., Paducah

4:00 Fractures of Spine and Pelvis

S. H. Flowers, M.D., Middlesboro

4:30 Adjournment

Wednesday, September 23

COLUMBIA AUDITORIUM

REGISTRATION OF DELEGATES

6:00 to 7:00 P.M.

7:00 SECOND MEETING OF THE HOUSE OF DELEGATES

(All members are privileged to attend)

Thursday, September 24

COLUMBIA AUDITORIUM

REGISTRATION

8:00 to 9:00 A.M.

3:30 Visit the exhibits

FIFTH SCIENTIFIC SESSION

9:00 A.M.

Clyde C. Sparks, M. D., Ashland
Moderator

9:00 The Role of the General Practitioner in Modern Medicine

John J. Rolf, M.D., Covington

9:30 The Management of the Hypertensive Patient

J. Murray Kinsman, M.D., Louisville

10:00 Medical Responsibility in the Commitment of the Mentally Ill

Frank M. Gaines, M.D., Louisville

10:30 Visit the exhibits

11:00 The Legislative Program and Activities of the A.M.A.

C. Joseph Stetler, Chicago, Illinois

11:30 Changing Patterns in Obstetrical Practice

H. Close Hesseltine, M. D., Chicago,
Illinois

Thursday, September 24

COLUMBIA AUDITORIUM
SIXTH SCIENTIFIC SESSION

2:00 P.M.

G. Y. Graves, M.D., Bowling Green
Moderator

2:00 Some Problems of Biliary Tract Surgery

H. Hart Hagan, M.D., and William
H. Hagan, M.D., Louisville

2:30 Early Care of the Severe Burn

Col. William H. Amspacher (MC)
Fort Sam Houston, Texas

3:00 Visit the exhibits*

3:30 The Rehabilitation of the Hemiplegic Patient

Donald A. Covalt, M.D., New York,
N. Y.

4:00 Incidence of Malignancy in Younger Age Groups

Malcolm Barnes, M.D., Louisville

4:30 Adjournment

*All exhibits close at 3:30 P.M.

Thursday, September 24

7:30 P.M.

ANNUAL BANQUET

CRYSTAL BALLROOM—BROWN HOTEL

(Dress Optional)

G. Y. Graves, M.D., Bowling Green
Toastmaster

Invocation

Most Rev. John A. Floersch, Archbishop of the
Louisville Diocese

Dinner

Welcome

Clyde C. Sparks, M.D., Chairman of the
Council

Recognitions

G. Y. Graves, M.D.

Remarks of President-Elect and Charge to New Members

J. Duffy Hancock, M.D., Louisville

Presentation of Awards

Bruce Underwood, M. D., Secretary and General Manager, K.S.M.A.

Address

To be announced

Inaugural Ceremony

Benediction

Most Rev. John A. Floersch

THIRTY-FIRST ANNUAL MEETING

of the

WOMAN'S AUXILIARY

to the

Kentucky State Medical Association

BROWN HOTEL

Louisville, Kentucky

September 22, 23, 24, 1953

REGISTRATION:

North Bay of Lobby, Brown Hotel

Monday—12 Noon to 5 P.M.

Tuesday—9 A.M. to 5 P.M.

Wednesday—9 A.M. to 11 A.M.

Chairman of

RegistrationMrs. J. Andrew Bowen
Louisville

Tuesday, September 22

9:00 A.M.

South Room

Preconvention Board Breakfast (subscription)
(The Board consists of all general state officers, councilors, state committee chairmen, county auxiliary presidents, and three immediate past presidents.)

Tuesday, September 22

1:00 P.M.

South Room, Brown Hotel

Formal opening of the Thirty-first Annual Meeting of the Woman's Auxiliary to the Kentucky State Medical Association.

PresidingMrs. John Woolfolk Barrow
Lexington, President

InvocationMrs. O. T. Evans
Lexington

Pledge of Allegiance
to the Flag.....Mrs. John Harter
Louisville, Immediate
Past President

Pledge of Loyalty.....Mrs. Harter
"I pledge my loyalty and devotion to the
Woman's Auxiliary to the American Medical
Association. I will support its activities,
protect its reputation, and ever sustain its
high ideals."

Address of Welcome..Mrs. C. Melvin Bernhard
Louisville, President,
Jefferson County Auxiliary

Response.....Mrs. James S. Rich
Lexington, Corresponding Secretary

In Memoriam.....Mrs. Tracy Doty
Pikeville, President,
Pike County Auxiliary

Presentation of Convention
ChairmanMrs. Malcolm L. Barnes
Louisville

Presentation of Distinguished Guests
Roll Call.....Mrs. William Cartmell
Maysville

Minutes of the Thirtieth Annual
MeetingMrs. Cartmell
Report of the 1953 National
ConventionMrs. Karl Winter
Louisville

REPORTS OF OFFICERS:

Treasurer.....Mrs. William Cloyd
Richmond

President-Elect and Organization
ChairmanMrs. Clyde Sparks
Ashland

President.....Mrs. David Woolfolk Barrow

Old Business

New Business

Report of Nominating

Committee.....Mrs. John Harter, Chairman
Election of Nominating Committee, 1953-1954
Presentation of 1953-1954

BudgetMrs. John Harter
Finance Chairman

Report of
RegistrationMrs. J. Andrew Bowen

Recess

Reports of County Auxiliary Presidents

Reports of State Chairmen

3:30 P.M.

Informal Tea

(All doctors' wives invited.)

Wednesday, September 23

9:00 A.M.

South Room

Reading of Minutes....Mrs. William Cartmell

Roll CallMrs. Cartmell

Announcements.....Mrs. Malcolm L. Barnes
Convention Chairman

Panel on Public Relations

Guthrie Y. Graves, M.D., Bowling Green
President, Kentucky State Medical Asso-
ciation

J. Duffy Hancock, M.D., Louisville
President-Elect, K. S. M. A.

Mrs. E. W. Jackson, Paducah
Public Relations Chairman and Past Presi-
dent

Mrs. Clark Bailey, Harlan
Legislative Chairman and Past President

Old Business

New Business

Election of Officers

Presentation of Distinguished Guests

Mrs. Leo J. Schaefer, Salina, Kansas, Presi-
dent, Woman's Auxiliary to the American
Medical Association

Mrs. R. F. Stover, Miami, Florida, President,
Woman's Auxiliary to the Southern Medi-
cal Association

Installation of Officers.....Mrs. Schaefer

Inaugural Address.....Mrs. Clyde Sparks

Announcement of Committee

ChairmenMrs. Sparks

Final Report of

RegistrationMrs. J. Andrew Bowen

Adjournment

Wednesday, September 23

1:00 P.M.

Crystal Ballroom

Subscription Luncheon

Style Show in Honor of

Mrs. Leo J. Schaefer and Mrs. R. F. Stover

Invocation.....Mrs. Garland Clark
Winchester, Councilor,
11th District

Presentation of Officers

Presentation of Distinguished Guests

AddressMrs. Leo J. Schaefer
President, Woman's Auxiliary to the
American Medical Association

Style Show

Wednesday, September 23

Conferences of State Committee Chairmen with
County Auxiliary Committee Chairmen
(Locations to be announced.)

Thursday, September 24

9:00 A.M.

Board Breakfast (subscription) and Meeting
Mrs. Clyde Sparks, Presiding

Thursday, September 24

7:00 P.M.

Crystal Ballroom

Annual Dinner of the Kentucky State Medical
Association (subscription).

STATE CONVENTION COMMITTEES

General Chairman....Mrs. Malcolm L. Barnes
Louisville
Registration.....Mrs. J. Andrew Bowen
Louisville
Style Show Luncheon....Mrs. A. R. Kasey, Jr.
Louisville
Hospitality and Hospitality
RoomMrs. John Gordinier
Louisville
PublicityMrs. Hugo Polderman
Waverly Hills
FlowersMrs. Houston Shaw
Louisville

**WOMAN'S AUXILIARY TO THE KENTUCKY
STATE MEDICAL ASSOCIATION**

1952 - 1953

State Officers

President: Mrs. David Woolfolk Barrow, Lex-
ington
President-Elect: Mrs. Clyde Sparks, Ashland
Vice-President: Mrs. R. W. Bushart, Fulton
Vice-President: Mrs. A. B. Colley, Calhoun
Vice-President: Mrs. T. M. Perry, Jenkins
Vice-President: Mrs. Karl Winter, Louisville
Recording Secretary: Mrs. William Cartmell,
Maysville
Corresponding Secretary: Mrs. James Rich,
Lexington
Treasurer: Mrs. William Cloyd, Richmond
Parliamentarian: Mrs. Philip E. Blackerby,
Louisville

Advisory Committee

Karl D. Winter, M.D., Louisville, Chairman
J. Farra Van Meter, M.D., Lexington
R. Ward Bushart, M.D., Fulton

Immediate Past Presidents

Mrs. E. W. Jackson, Paducah
Mrs. Clark Bailey, Harlan
Mrs. John Harter, Louisville

District Councilors

1st—Mrs. Vernon Pace, Paducah
2nd—Mrs. Walter L. O'Nan, Henderson
3rd—Mrs. R. E. Davis, Central City
4th—Mrs. J. M. Dishman, Greensburg
5th—Mrs. T. Ashby Woodson, Louisville
6th—Mrs. William McCormack, Bowling Green
7th—Mrs. H. V. Stewart, Carrollton
8th—Mrs. Luther Bach, Florence
9th—Mrs. John Cummings, Flemingsburg
10th—Mrs. John Prewitt, Lexington
11th—Mrs. Garland Clark, Winchester
12th—Mrs. Robert Bateman, Somerset
13th—Mrs. Charles B. Johnson, Russell
14th—Mrs. J. E. Johnson, S. Williamson
15th—Mrs. Charles Stacy, Pineville

Committee Chairmen

American Medical Education Foundation: Mrs.
Eli Boggs, Hazard
Benevolence: Mrs. Samuel Flowers, Middles-
boro
Blue Grass News: Mrs. Alfred O. Miller, Louis-
ville
Bulletin: Mrs. Ralph Angelucci, Lexington
Cancer: Mrs. John B. Floyd, Jr., Lexington
Civil Defense: Mrs. Shelby Carr, Richmond
Doctor's Shop: Mrs. Carroll Price, Harrodsburg
Finance: Mrs. John Harter, Louisville
Heart: Mrs. Claud Bays, Lexington
Historian: Mrs. R. Haynes Barr, Owensboro
Legislation: Mrs. Clark Bailey, Harlan
McDowell House: Mrs. Walker Owens, Mt.
Vernon
Nominations: Mrs. John Harter, Louisville
Nurse Recruitment: Mrs. D. G. Miller, Morgan-
town
Program: Mrs. E. W. Jackson, Paducah
Public Relations: Mrs. E. W. Jackson
Revisions: Mrs. E. Lee Heflin, Louisville
Today's Health: Mrs. B. T. Harris, Lexington
Tuberculosis: Mrs. John B. Floyd, Richmond

"A Citizen Participates," new motion pic-
ture showing how members of a rural com-
munity can work together to secure a physi-
cian, has been cleared by the A.M.A. and is
recommended as a valuable public relations
tool for state and county medical societies. Fur-
ther information on the 27-minute film may be
had from Young American Films, Inc., 18 East
41st Street, New York 17.

KSMA to Elect 8 Officials at 1953 Annual Session

Officers of the Kentucky State Medical Association to be elected at the 1953 meeting, September 22-24, at the Columbia Auditorium in Louisville by the House of Delegates are:

President-Elect:

(from Eastern Section) 1 yr.

Vice-Presidents:

(from Central Section) 1 yr.

(from Eastern Section) 1 yr.

(from Western Section) 1 yr.

Secretary, (Bruce Underwood, M.D.,
Louisville) 5 yrs.

Treasurer, (Woodford B. Trout-
man, M.D., Louisville) 5 yrs.

Speaker, (Hugh L. Houston, M.D.,
Murray) 3 yrs.

Vice-Speaker, (Charles A. Vance, M.D.,
Lexington) 3 yrs.

Orator in Surgery

Orator in Medicine

Delegates to A.M.A.:

Delegate, (Bruce Underwood, M.D.,
Louisville) 2 yrs.

Alternate, (W. Vinson Pierce, M.D.,
Covington) 2 yrs.

(Incumbent officers listed in parentheses)

In addition, one delegate to the American Medical Association and an alternate delegate will be elected for two-year terms, starting January 1, 1954. Bruce Underwood, M.D., Louisville, and Vinson Pierce, M.D., Covington, are the current delegate and alternate. Orators in Medicine and Surgery will be selected for a one-year tenure.

The Nominating Committee appointed by Hugh L. Houston, M.D., Murray, speaker of the House of Delegates, is composed of W. Vinson Pierce, M.D., Covington, chairman, Everett L. Baker, M.D., Louisville, and Gant Gaither, M.D., Hopkinsville.

Following the procedure established at the 1952 annual session, the committee will meet in the Columbia Auditorium immediately after the close of the first session of the House of Delegates, Tuesday evening, September 21. At this time the committee will welcome any suggestions for the nominees to be named. Tuesday the committee will announce the nominees at the beginning of the after-

noon scientific session starting at 2 p. m., Central Daylight Saving Time.

Election of officers will be held during the second session of the House of Delegates, Wednesday evening, September 23. Nominations for any given office may be made from the floor at that time, Dr. Houston said.

Each County Asked to Certify Delegates to Hq. Office

A number of counties, who have not submitted the names of their delegates for the 1953 Annual Meeting were urged by Speaker Hugh L. Houston, M.D., Murray, to certify them to the Headquarters office at the earliest possible date.

According to the K.S.M.A. By-Laws, every county is entitled to at least one delegate, or a delegate for each 25 active members or major fraction thereof.

For the benefit of those counties who have not submitted the names of their delegates, we quote Chapter IV, Section 2 in its entirety:

Section 2. "In the event there is no duly authorized delegate in attendance at the regular meeting of the House of Delegates the President shall consult any duly elected officer of the component society who is in attendance and with the approval of the Credentials Committee may appoint any active member of the component society in attendance at the meeting as the delegate. In the event there is no duly elected officer of the component society in attendance, the President may make the said appointment with the approval of the Credentials Committee. All appointments made shall also be with the approval of the House of Delegates."

City Buses Offer Special Service During 1953 Session

As a special service to K.S.M.A. members, wives and guests, attending the annual meeting September 22, 23 and 24, the Louisville Transit Company, through the kind permission of the Mayor's Office, will establish a temporary bus stop in front of the Columbia Auditorium.

Both north and south bound Fourth Street buses may accept and discharge passengers to any point on the transit company's system immediately in front of the Auditorium during the meeting.



The invitation to good fellowship and sport which the above scene depicts is open to all members of K.S.M.A. It is the 9th green and fairway at the Louisville Country Club, which will be the site of the 1953 annual K.S.M.A. Golf Tournament, September 21, 22, 23, and 24. Bring your clubs to the Annual Meeting and get in the swing.

Louisville Country Club Site of KSMA Golf Tournament

The Kentucky State Medical Association Golf Tournament will be held in conjunction with the annual meeting at the Louisville Country Club Sam A. Overstreet, M.D., chairman of the Golf Committee, has announced.

Stressing the opportunity for fellowship which the annual tournament provides K.S.M.A. members from all over the state, Dr. Overstreet pointed out that doctors may participate in the medal play at any time Monday, Tuesday, Wednesday, or Thursday, September 21 through 24. Visiting physicians may play as guests of individual club members or by paying greens fees at the club house. Players are requested to leave their score cards and their handicaps with the professional in the caddy house.

Other members of the Golf Committee are James Blackerby, M.D., Stanford, Clifton G. Follis, M.D., Glasgow, W. Vinson Pierce, M.D., Covington, and William C. Wolfe, M.D., Louisville.

Make Reservations Now

Members attending K.S.M.A. President's Luncheon and Annual Dinner are urged to purchase tickets at earliest convenience.

Ten District Councilors to be Elected at 1953 Meeting

The House of Delegates, at its second session, Wednesday evening, September 23, at the Columbia Auditorium in Louisville will elect ten district councilors.

In 1950, when the state was redistricted, and the number of districts was increased from 11 to 15—the situation developed in such a way as to cause the terms of 10 councilors to expire at this time.

The 1952 House of Delegates passed a resolution providing machinery for rearrangement of the councilor terms so that the terms of five councilors expired each year—the length of the term is 3 years.

Results of the procedure set up by the 1952 House action were described in the July issue of the Journal of K.S.M.A. on page 317. The 1953 House will elect councilors in the following districts for such terms as indicated. (Names in parentheses are incumbent councilors.)

For three years (five districts):

- 1 (J. Vernon Pace, M.D., Paducah)
- 3 (Delmas M. Clardy, M.D., Hopkinsville)
- 4 (J. I. Greenwell, M.D., New Haven)
- 12 (Carl Norfleet, M.D., Somerset)
- 14 (Paul B. Hall, M.D., Paintsville)

For two years (four districts):

2 (Walter L. O'Nan, M.D., Henderson)

7 (Branham B. Baughman, M.D., Frankfort)

9 (J. R. Cummings, M.D., Flemingsburg)

13 (Clyde C. Sparks, M.D., Ashland)

For one year (one district):

11 (Hugh Mahaffey, M.D., Richmond)

The method for selecting nominees for the office of District Councilor are set forth in Chapter 5, Section 6, of the By-laws. We quote.

"The Delegates from the counties in each Councilor District shall form the Nominating Committee for the purpose of nominating a Councilor for the Councilor District concerned. This committee shall hold a meeting open to all active members of the Councilor District concerned who are in attendance at the meeting for the purpose of discussing the nomination for the Councilor to serve the District. Additional nominations may be made from the floor by any member of the House of Delegates when the Nominating Committee makes its report to the House of Delegates."

The 1952 House action also stated "Provided, however, that all councilors shall be elected thereafter for full three year terms as provided in Chapter V Section 1 of the By-laws. Provided further that councilors elected for one or two year terms shall thereafter be eligible for a full three-year term."

Chest Men to Meet September 23

Paul H. Holinger, M.D., Chicago, will address the Kentucky Chapter of the American College of Chest Physicians at its annual meeting and luncheon at the Brown Hotel, Louisville, on Wednesday noon, September 23, during the K.S.M.A. Annual Meeting, it was announced by L. O. Toomey, M.D., Bowling Green, president of the chapter.

Dr. Holinger is professor of bronchoesophagology at the University of Illinois College of Medicine and senior attending bronchoesophagologist at St. Luke's Hospital, the Children's Memorial Hospital of Chicago, and the Research and Educational Hospitals of the University of Illinois College of Medicine. His subject will be "Congenital Anomalies of the Trachea and Bronchi."

Other officers in the Kentucky Chapter are John S. Harter, M.D., Louisville, vice-president, and Lawrence A. Taugher, M.D., Louisville, secretary and treasurer. T. Ashby Woodson, M.D., Louisville, is Kentucky governor in the national organization.

Special Emphasis Planned For Scientific Movies

Something special is in store for K.S.M.A. members attending the 1953 Annual Session at the Columbia Auditorium September 22-24, according to James C. Drye, M. D., Louisville General Hospital, Chairman of the Committee on Scientific Movies.

Plans were not completed for the program of scientific movies at the time this issue went to press, but, Dr. Drye promised that every effort would be made to co-ordinate the material that would be presented, and to make it more profitable to those who wish to attend this feature of the annual meeting.

Dr. Drye said that there would be subsequent announcements covering the development of the movie program. Other committee members are: Jesshill Love, M.D., Harold Gordon, M.D., and Arnold Griswold, M.D., all of Louisville.

New Procedure For Selecting Nominating Group Listed

A new procedure for the naming of the Nominating Committee to select nominees for the various general officers of the Kentucky State Medical Association, was voted by the 1952 House of Delegates when the K.S.M.A. By-laws were changed to read as follows:

(1) Delete the words "a nominating committee" from section (4) of Chapter IV of the By-laws and change section (5) of Chapter V to read as follows:

Section (5)—During the last session of the House of Delegates the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of ten names from which by ballot the House of Delegates shall select five members to serve as the nominating committee for the next year. The five names receiving the most votes shall form the committee. The committee.

shall select one of its members as chairman. The nominating committee shall submit its report in writing to all members of the House of Delegates at the first meeting of the House of Delegates and shall submit one or more names for each officer to be elected. Additional nominations may be made from the floor by submitting the nomination without discussion or comment.

Note: (This change provides for a nominating committee selected by the House of Delegates.)

The new plan for selecting the committee will become operative at the second session of the House of Delegates at the 1953 meeting. The committee will function for the first time under the new system at the 1954 meeting.

KSMA Scientific Exhibits Offer Well Balanced Material

The Scientific Exhibits for the 1953 Annual Meeting promise to be of unusual value to K.S.M.A. members, according to a spokesman for the Committee on Scientific Exhibits.

Exhibits will be set-up in the two rooms off to the right of the main lobby of the Columbia Auditorium. There will be six thirty-minute intermissions during the Scientific Assembly to view the exhibits.

This year's presentation is well balanced, the spokesman said, and promises to have a broad interest for the membership. A synopsis of each of the scientific exhibits will be found in the program-booklet.

KSMA to Hear Dr. Stewart Wolf at Psychiatrists' Invitation

Members of the Kentucky State Medical Association are invited to hear Stewart Wolf, M. D., professor of medicine, University of Oklahoma School of Medicine, discuss "Neural Integration and Mechanisms of Disease" at the annual meeting of the Kentucky Psychiatric Association, Monday, September 21, at 8:30 p.m. in the Brown Hotel Roof Garden, it was announced by Joseph Goldstein, M.D., Louisville, program chairman.

An earlier program at 2:00 p.m. has been arranged on psychosomatic medicine. The following will speak:

Charles Feuss, M.D., Eastern State Hospital, Lexington, "Cerebral Arteriosclerosis with Somatic Complaints, Ratio of Physically Demonstrable Pathology."

Lotte Bernstein, M.D., clinical director, Child Guidance Clinic, Louisville, "Emotional Aspects of a Case of Childhood Eczema."

Charles Duncan, M.D., assistant professor of medicine and psychiatry, University of Louisville School of Medicine, Louisville, "Life Stress and Cardiovascular Disorders."

Hollis Johnson, M.D., Norton Memorial Infirmary, Louisville, "Current Trends in the Treatment of Alcoholism."

Therapy Seminar Planned by U of L

A full day seminar on therapy will be held on Friday, September 25, by the University of Louisville School of Medicine in conjunction with the Annual Meeting of the Kentucky State Medical Association, according to Herbert L. Clay, M.D., director of post-graduate refresher training at the medical school.

Programs on recent advances in medicine, including obstetrics and gynecology, pediatrics, psychiatry, and surgery, will be conducted by department heads at the school and their staff representatives. Registration will begin on Friday morning at 8:30, at the Louisville General Hospital.

EENT Section Meeting To Be Held September 21

Rudolph Aebli, M.D., of New York, and O. E. Van Alyea, M.D., of Chicago, will be featured at the meeting of the Section for Ophthalmology and Otorhinolaryngology of the Kentucky State Medical Association at its meeting to be held at the Brown Hotel, Louisville, Monday, September 21, it has been announced by William R. Thompson, Jr., Lexington, section president.

Dr. Aebli is Professor of Clinical Ophthalmology at New York University Post-Graduate Medical School. Dr. Van Alyea is Clinical Professor of the Department of Otolaryngology at the University of Illinois Medical School. Both men will speak at the scientific session to be held Monday afternoon in Parlors A, B and C and the banquet to be held in the South Room at the Brown Hotel.

"CONVENTION CAPSULES"

Registration by members and guests will be at the Registration desk, which will be located in the west end of the Technical Exhibit Hall at the Columbia Auditorium, 824 South Fourth Street. Registration will start at 8 a.m. each morning, beginning Tuesday, September 22, and will continue until 5 p.m. each day through Thursday.

Wabash 6903 is the Special Convention telephone number. If you wish to be reached while attending the Annual Sessions, leave this number with your home, office or hospital. This telephone will be used only for incoming calls. The Brown Hotel telephone number is Jackson 1311.

Scientific movies will be shown continuously in the basement lounge of Columbia Auditorium. This room may be found by taking the stairway just outside of the Technical Exhibit Hall in the foyer. The motion pictures to be shown have been carefully reviewed and selected by the Sub-Committee on Scientific Movies.

The Woman's Auxiliary to the K.S.M.A. will hold all of its sessions at the Brown Hotel. Auxiliary members will register in the hotel lobby. The members are urged to visit the Technical Exhibits at the Columbia Auditorium.

Reference committees of the House of Delegates will meet at the Auditorium Tuesday afternoon at 2 p.m., in the same quarters occupied by them the past three years. Any K.S.M.A. member who has interest in any of the matters to be acted upon is urged to attend the committee hearing that is considering the matter.

The President's Luncheon will be one of the meeting's highlights with an address by Edward J. McCormick, M.D., Toledo, Ohio, President of the American Medical Association. It will be held in the Roof Garden of the Brown Hotel at 12 noon, Tuesday, September 22. Purchase your luncheon tickets at the Registration Cen-

ter or the K.S.M.A. booth in the foyer of the Columbia Auditorium.

The House of Delegates will hold its meetings in the Columbia Auditorium. The first regular session will convene at 7 p.m. Monday, September 21; the second regular session will begin at 7 p.m. Wednesday, September 23. Members of K.S.M.A. are eligible to attend these meetings.

The Sixty Technical Exhibitors have been asked by the Committee on Technical Exhibits to talk only to those persons wearing registration badges. This request is made for your protection and convenience, and for that of the exhibitors. Please wear your badge at all times while in the Auditorium.

The Education Campaign Committee will operate a booth at the north end of the entrance hall immediately outside the entrance of the Technical Exhibit Hall. This space is set aside for your convenience. You may purchase your tickets to the Annual Dinner or the President's Luncheon, or use the comfortable chairs provided to wait for a friend. The individual in charge will keep your packages for you, take your order for any of the educational materials you may desire. This is a place to ask for information you may want.

Approximately a dozen scientific exhibits of excellent quality will be a feature of the meeting. Well located in the Columbia Auditorium, they should be seen by every member attending the meeting.

The annual golf tournament will be held at the Louisville Country Club Monday through Thursday, September 21-24. All K.S.M.A. members eligible to play.

The annual banquet will be held in the Brown Hotel Crystal Ballroom at 7:30 p.m., Thursday, September 24. An interesting and worthwhile program has been planned for this social highlight of the Association's year.

Multiple Myeloma*

(Including A Report of 11 Cases)

PAUL J. PARKS, M. D.**

Richmond, Ky.

Multiple myeloma is a disease characterized by the development of multiple bone tumors which produce pain, pathological fractures, and anemia. It is a neoplasm comprised of plasma cells arising directly from the reticular cells of the reticulo-endothelial or histiocytic tissue.

The first adequately described case of multiple myeloma in the literature was that reported by McIntyre¹ who in 1845 had seen a patient with osteolytic rib lesions and in whom Bence-Jones² had found an unusual urinary sediment which he called animal matter. Dalrymple³ was later asked to examine the ribs microscopically and his was one of the earliest pathological descriptions of the disease. Although all of these people adequately reported their findings, they did so in separate publications and for that reason Rustizky⁴ is usually given credit for publishing the first complete description of the disease. Because of a lengthy report later by Kahler⁵, multiple myeloma is sometimes known as Kahler's Disease and because of his emphasis on the association of Bence-Jones protein with myeloma, this latter has unfortunately often been considered necessary to establish the diagnosis; this despite the fact that Bence-Jones protein is found in only about 60 per cent of multiple myeloma cases and despite the fact that it is also found in other diseases producing osteolytic lesions.

In 1928 Geschicter and Copeland⁶ reviewed all the cases reported up to that time and gave a brief review of the usual clinical and X-ray findings. There apparently has not been a complete review of the literature since Atkinson's⁷ report in 1937, but there are many small series of case reports dealing with clinical manifestations and several extensive reports

dealing primarily with treatment of this disease.

It is the purpose of this paper to present briefly the chief clinical, laboratory, and X-ray features; to describe the old and recent trends in the treatment of multiple myeloma; and, to review the cases treated at the Veterans Administration Hospital, Louisville, Kentucky, during a recent five year period.

Since the original description of multiple myeloma, several other terms have been given the disease which, for the purposes of this paper, are considered to describe the same pathological entity. These terms include plasma cell myeloma, plasmocytoma, and plasma cell leukemia. There is considerable doubt as to whether or not the latter term should be used in this disease but one writer⁸ has stated that multiple myeloma is nothing more than a leukemia of plasma cells, ordinarily of the aleukemic type.

Etiology

As in all other malignant neoplasms, the exact etiology of multiple myeloma has not been demonstrated but it is generally believed that it represents an abnormality of the reticulo-endothelial cells in which there is an abnormal number of plasma cells formed from the reticulum without the intermediation of the myeloid or lymphocytic series. Some believe, however, that the myeloma cells arise from myeloblasts, erythroblasts, osteoblasts or supportive tissue, and others feel that they are modified lymphoid tissue.

Although there have been reports⁷ of its occurrence in children, multiple myeloma is a disease of adult life occurring most frequently between the ages of 40 and 70 and very rarely before the age of 30. It is at least twice as common in the male as in the female, and one series⁸ shows a ratio as high as 3 to 1.

The disease occurs in many countries and does not seem to be related to any particular race, social or economic strata, or to any particular climate. It does not seem to be familial and is not precipitated by any known toxic agent, trauma, or in-

*Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are a result of his study and do not necessarily reflect the opinion or policy of the Veterans Administration.

**From the Medical Service, V. A. Hospital, Louisville, Ky., and the Medical Department of the University of Louisville School of Medicine.

*Formerly, Resident in Medicine, V. A. Hospital, Louisville, Ky., and Assistant in Medicine, University of Louisville School of Medicine.

fection. In many cases trauma produces the first symptoms but always in a previously diseased bone. Fever is common in the terminal stages but almost never early in the disease and when present can usually be explained on the basis of an intercurrent infection.

This disease is relatively uncommon, its incidence being given in varying percentages, one of which was 0.03 per cent of all malignancies⁶ and another 3 per cent of a group of 400 bone malignancies.

The onset of the disease is insidious in about 75 per cent of cases⁶ with the duration of symptoms before treatment is sought averaging 1 to 2 years.

Clinical Features

Clinically the most prominent symptom is pain, this having been as high as 96 per cent in one series⁹. It is frequently the first symptom and the one that sends the patient to his physician although other mild symptoms may have preceded it by several months. The pain is most common in the lumbodorsal region and is frequently due to a pathological compression fracture in this area. Other less frequent sites of pain are the ribs, the thoracic spine, the shoulders, and the hips. The pain fits into no constant pattern, sometimes being radicular and severe and sometimes dull and aching in character. It is usually aggravated by motion but rest seldom completely relieves it, although in Bayrd and Heck's series⁸, many of the patients felt all right as long as they were not moving.

Pathological fracture is a rather frequent occurrence at some time during the course of the disease. Pain may or may not occur at the time of fracture and trauma is not necessarily a precipitating factor. In the cases in which there is diffuse involvement of the ribs, multiple fractures are common and often are not noted by the patient.

Probably the second most frequent clinical symptom is malaise, but vague gastrointestinal complaints are often present and usually no specific cause for these can be found. They are probably no more prominent in this than in any other chronic wasting disease and are seldom of sufficient degree to send the patient to a physician.

If there is compression of the spinal cord due to fractures of the vertebrae, para-

plegia or other neurological manifestations may be present.

Hemorrhagic manifestations are not uncommon having been reported in 9 out of 52 cases in one series⁹ and in 6 of 83 cases in another⁸. The cause of the bleeding is not known but it is not associated as a rule with any defect in the clotting factors, except possibly of clot retraction.

Palpable tumor formation is an infrequent finding that may call the patient's attention to the disease, but these tumors are sometimes found on the ribs, skull, or shafts of long bones. When present they are usually soft and elastic, are tender, and frequently are crepitant to palpation.

Deformity is said by Geschicter and Copeland⁶ to be present in 60 per cent of patients with multiple myeloma and the rib cage is the most common site. It is not infrequent in the spine and often causes flattening of the lumbar curve, dorsal kyphosis, and actual telescoping of the spinal column due to infraction and collapse of the vertebral bodies.

Other presenting symptoms⁷ may be those of nephritis, vascular disturbances similar to those of Raynaud's disease, or blindness due to thrombosis of the central artery of the retina.

Roentgenological Picture

In order to evaluate the roentgen-ray findings in multiple myeloma, a complete bone survey should be done on each patient, for although many bones usually are affected it is not rare to find a single lesion. Multiple myeloma affects red marrow¹⁰ and the early lesions are therefore found in the ribs, sternum, spine, clavicles, skull, and the proximal portions of the extremities, in about that order of frequency.

Multiple discrete osteolytic regions in the skeleton of an adult man are presumptive evidence of multiple myeloma and when seen merit further diagnostic studies. Since the tumors are destructive of bone, they frequently are seen roentgenographically as rounded punched-out areas varying in size from a pea to an orange. They sometimes are so widespread that there is a mottled appearance to the bone. If one waits to see these lesions before suspecting the disease, he will sometimes miss the diagnosis for it is not rare to find no more than a diffuse osteoporosis, the latter having been the

only X-ray abnormality⁹ in 6 patients of a 52 case series. As previously stated, fractures through the osteolytic lesions are common but frequently do not present a complete break and often may be overlooked. There is also formation of bone in some of these tumors and this is evidenced by healing of pathological fractures as seen occasionally by microscopic study but rarely by roentgenography.

When only a single lesion is demonstrated by X-ray examination, a diagnosis of solitary myeloma is sometimes made. There is considerable doubt that such an entity exists, evidence having been presented¹¹ that these patients later develop generalized marrow infiltration and widespread bone destruction. Even at the time the single lesion is demonstrated by X-ray, careful examination of the marrow in other areas will usually indicate diffuse involvement. If this occurs the lesion should no longer be referred to as solitary myeloma.

Laboratory Findings

The laboratory findings in this disease are of considerable help in making the diagnosis. Ever since the discovery of an abnormal protein in the urine of a patient with multiple myeloma, much emphasis has been placed on Bence-Jones protein as a diagnostic criterion. Some of the larger case series indicate that it varies from 42 per cent¹² to 65 per cent⁶. It may be absent early but occur intermittently during the course of the disease, therefore it should be looked for often. It formerly was thought to be pathognomonic of multiple myeloma but, although it is rare in other diseases, it is known to occur in metastatic carcinoma involving bone, multiple sarcoma of bone, senile osteomalacia, fibro-cystic disease, comminuted fracture, leukemia and polycythemia. It is apparently a globulin or a group of globulins which is small enough to pass through the glomeruli but its mode and site of production are not known.

Anemia has been such a frequent feature of multiple myeloma that when it is found in association with bone pain in an elderly individual, this diagnosis should be suspected. The anemia is usually severe and the red blood count and hemoglobin are both reduced. The most striking thing about the anemia is that it becomes more severe as the disease progresses. This is probably due to the

fact that such large amounts of the normal marrow are replaced by myeloma cells that erythropoiesis cannot occur, although toxic inhibition and renal failure may also play a part.

The laboratory technician may occasionally be the first to suspect a diagnosis of multiple myeloma because of her inability to count red cells due to their clumping in the counting chamber or due to excessive rouleaux formation on cross-matching slides. The exact cause for this is not known but it apparently is dependent on hyperglobulinemia. This latter is probably a more frequent finding than Bence-Jones protein and may reach very high levels. The albumin may be normal but is more frequently reduced. The total protein may be elevated or normal and when elevated is almost always due to the globulin fraction. Although hyperglobulinemia is regarded as being of considerable importance in arriving at a diagnosis, its origin and true significance are not known. However, it has been noted that there is a close correlation between globulin levels, rouleaux formation, and sedimentation rate.

Elevated serum calcium is a frequent finding and is apparently the result of bone lysis. It is associated with a normal serum phosphorus, a point differentiating multiple myeloma from hyperparathyroidism. The alkaline phosphatase level is usually normal or slightly elevated and is of little help in establishing the diagnosis.

The total white blood count is of no value in arriving at a diagnosis in this disease since it may be elevated, normal, or reduced, and there is no characteristic differential pattern except in those cases in which plasma cells have invaded the peripheral blood.

Microscopic Picture

A diagnosis of multiple myeloma should never be made without confirmation by bone marrow aspiration or bone biopsy. Both procedures are diagnostic in about 90 per cent of cases at some time during the course of the disease and are usually positive early. The majority of the cells are round, oval, or egg-shaped, 9 to 11 microns in size, with an eccentrically placed nucleus 4 to 5 microns in diameter. Occasionally, cells containing two or three nuclei are seen and each nucleus contains a nucleolus. Within the nucleus, sparse chromatin is arranged at the periphery

often in a spoke-like fashion in many cells and is surrounded by a well defined nuclear membrane. The fact that the perinuclear halo is almost always lacking, that the nucleus is usually larger, and that the cells do not take the usual plasma cell stains, helps to distinguish myeloma cells from normal plasma cells. The myeloma tissue is usually rich in blood vessels and there is often profuse hemorrhage into the tumor. The myeloma nodules are not well circumscribed microscopically and the cells can be seen surrounding spicules of bone that are atrophic as though they had been destroyed by the plasma cells. Rarely, the myeloma cells enter the peripheral blood, where their character remains unchanged, and when this occurs, the disease is then referred to by some observers as plasma cell leukemia.

Complications

Nephritis is a complicating factor in as high as 70 per cent⁶ of the advanced cases of multiple myeloma, but in about 50 per cent of these cases, the diagnosis is established only after postmortem studies. It may progress to the stage of renal failure and nitrogen retention so that a terminal uremic state is not infrequent. It has been stated that the nephritis is due to plugging of the tubules with Bence-Jones protein but many of the cases which have been reported have never shown Bence-Jones proteinuria. Nevertheless the microscopic lesion is usually limited to the tubules and interstitial tissue, leaving the glomeruli unharmed.

Amyloidosis was found in 40 of the 643 cases which Atkinson¹³ reviewed. This differs from the amyloidosis accompanying chronic infection only in that it more frequently occurs as deposits in the skin, skeletal musculature, cardiac muscle, and smooth muscle of the gastrointestinal tract, rather than in the liver, spleen, and kidney, as it does in chronic infection.

The liver and spleen are sometimes affected¹⁴ in multiple myeloma but this is not common. When it does occur it is due to metastasis of the plasma cell tumors to these organs. Metastasis to other bones and to lymph nodes also probably occurs.

Diagnosis

The diagnosis of multiple myeloma may be tentatively made when several of the previously described findings are present

but there should always be microscopic confirmation since marrow biopsy is highly positive and is an easy diagnostic test. There is no general agreement as to the number of plasma cells that there must be in the bone marrow to establish the diagnosis but some writers feel it is greater than 10 per cent of the nucleated cells, the usual number in the normal patient amounting to less than 1 per cent plasma cells. The pathological picture of the individual cell is the same whether it be found in a solitary bone tumor, in the bone marrow, or in the peripheral blood, and is as was described above.

Treatment

Multiple myeloma is one neoplasm in which treatment has been universally disappointing and has resolved itself into palliation with little hope of cure of the disease.

One of the earliest forms of treatment consisted of the administration of Coley's toxin which was a mixture of the toxins of erysipelas and *B. prodigiosus*, but this was nonspecific and has been abandoned for X-ray, chemotherapeutic drugs, isotopes, and hormone supplements.

X-ray therapy was one of the earlier forms of treatment and reviews of single cases thus treated indicate that good results were numerous, but when reviewing large series with such treatment the results are not so promising. Some roentgenologists consider this tumor a very radiosensitive one while others feel that roentgen therapy has little effect other than to relieve the pain associated with the bone lesions. Regato¹⁵ feels that myeloma lesions are very radiosensitive and locally radio-curable and that treatment of multiple new lesions may greatly increase life expectancy. He feels further that in order to obtain local sterilization, treatment should be continued long after the clinical disappearance of the tumor. This type of treatment would necessarily be limited since the disease is so often widespread when the patient seeks therapy, but it is perhaps the treatment of choice in the so-called solitary myelomas.

Garland and Kennedy¹⁶ reviewed 18 cases which they treated and found that X-ray therapy had little ability to prolong life but they were able to relieve pain in 95 per cent of their cases. They treated one case of solitary myeloma compressing the spinal cord with laminectomy

and radiation with a 9 year survival. Anda¹⁷ treated 11 cases but found only temporary improvement, for the most part limited to subjective symptoms, but there have been other reports in which there was X-ray evidence of decreased osteolysis and recalcification in the treated areas.

Stilbamidine and pentamidine have been advocated by Snapper¹⁸ because they have been found to be of value in other diseases in which hyperglobulinemia is a prominent feature. Fifteen cases were treated because of excruciating pains and all obtained considerable relief. There was no change in the number of myeloma cells in the bone marrow and no cures were obtained. However, there was good evidence that life had been prolonged. The chief danger in the use of stilbamidine is its tendency to produce severe trigeminal neuralgia which has often been as severe as the pain from the myeloma. Haedicke and Greenspan¹⁹, as well as Rubinstein² and Propp's group²⁰, have reported cases in which massive doses of stilbamidine were able to produce changes in the plasma cells by causing appearance of large basophilic inclusion bodies in the cytoplasm but despite this the disease was progressive.

Propp²⁰ treated 6 cases with stilbamidine, 3 of which were complicated by the development of trigeminal neuralgia and no improvement was noted in any of these, although one showed a temporary drop in the number of plasma cells in the bone marrow.

Antimony in the treatment of multiple myeloma has been advocated by Rubinstein²¹ and, although little change was noted in the general course of the disease, he was able to reduce the size of tumor masses and, in one patient which had severe nasal hemorrhage, he felt cessation of bleeding could be attributed to the antimony. In 7 of his 11 cases no change at all was noted following treatment.

Urethane has been used because it has been classified as an antagonist of malignant cells and because it has been found to be a competitive inhibitor²² to the utilization of a naturally occurring amine which is essential to nuclear protein synthesis. Berman and Axelrod²³, in a report on its use in other malignant diseases, included a case of multiple myeloma treated with urethane. They found that this drug sometimes produced nausea, vomiting, drowsiness, and diarrhea when

given by mouth, but that these symptoms were seldom severe enough to warrant stopping the drug. Intravenous therapy was recommended when nausea and vomiting were severe. Loge and Rundles²⁴ treated 6 cases in which they used an average of 4 grams of urethane daily for periods of from 5 weeks to 2 months. In 4 patients there was noted rather marked subjective improvement, decrease in myeloma cells in the marrow, fall in blood proteins and improvement of X-ray findings in one. The life of two was definitely prolonged and the other 2 had remissions for as long as 6 months. A two year experience, in which 11 cases were treated by Harrington and Maloney²⁵, was reported from the Boston City Hospital in 1950. The dosage used was 3 to 6 grams a day given orally in capsules or as enteric coated tablets. Of the 9 patients who had bone pain, relief was obtained in 100 per cent, and 6 patients had other evidence of a good clinical response. Three showed an increase in red blood count and hemoglobin, in 6 the sedimentation rate was reduced, and in 6 there was a reduction in plasma protein. There was a decrease in myeloma cells in the bone marrow in nearly all, but of the 7 who had X-ray lesions, no bone improvement was noted. Haines, Powell and Bailey²² obtained somewhat poorer results but their cases were treated with smaller dosages, although over a longer period of time.

In a report²² of 4 cases treated with adrenocorticotrophic hormone excellent results were obtained in 2 and poor results in 2. The first patient received 85 milligrams intramuscularly daily for 20 days. Subjective improvement was marked, euphoria developed, hypercalcemia disappeared, red blood count and hemoglobin rose to normal levels, there was a decrease of myeloma cells in the bone marrow (although their morphology remained unchanged), and callus began to develop around a pathological fracture site. This continued for 6 weeks after the drug was started and the patient felt fine at the time of the report. The second patient received the same dosage and showed no change in clinical picture or laboratory data. The third patient received 85 milligrams for 20 days and at the end of 6 weeks showed no improvement. The fourth patient was doing very well on urethane when ACTH was added to the therapeutic program and continued improvement was noted.

Lawrence and Wasserman²⁶ reviewed the literature on treatment of multiple myeloma with isotopes and found that results of treatment were always discouraging and that life had not been prolonged by this method. They reported 24 cases that they had treated with radioactive phosphorus or strontium. Seven cases were not benefited by either one or a combination of these elements, 8 others had only occasional symptomatic improvement, and 5 had relatively satisfactory results. Development of anemia, when not already present, was a complicating factor in almost 100 per cent of those patients treated by this method.

Prognosis

Multiple myeloma must be considered a rapidly fatal disease with or without our present methods of treatment. The usual duration of life after the onset of symptoms varies from a few months to as long as nine years but the average is one to two years. The most rapidly progressive course and the most severe symptoms are usually in those patients showing the highest percentage of immature cells in the bone marrow preparations.

Review of 11 Cases

In review of the 42,276 admissions to the Veterans Administration Hospital, Louisville, Kentucky, during the five year period from April 15, 1946 to April 15, 1951, there were 11 patients who had a discharge or death diagnosis of multiple myeloma. These were actually seen during a four year period since there was none in the first year, one each in the second and third years, five in the fourth year, and four in the fifth year.

Depending on the nature of admission complaints, some of these patients were assigned to the medical service and others to the orthopedic service, the orthopedists treating primarily those that had findings indicative of fractures or other orthopedic disorders.

Clinical Features

At the time of admission, five of these patients were well developed and well nourished and six were described as poorly nourished or cachectic. The temperature was elevated in three cases, the pulse was 100 or above in five cases, and the blood pressure was of a hypertensive level in only one patient.

Of the total of 11 patients, who ranged in age from 36 years to 71 years, 9 were admitted because of bone pain, 1 because of angina pectoris, and 1 because of soreness and swelling around the eyes. The duration of symptoms prior to admission ranged from 2 weeks to 3 years, and the total duration of the illness from 2 months to greater than 4 years. The bone pain, which caused the admission of 9 of the patients, was predominantly in the lumbar spine area in 6, and in the chest, femur, and shoulder, in 1 each. Six either had pathological fractures at the time of admission or developed them during hospitalization.

Laboratory Findings

All 9 of the patients admitted because of bone pain had X-ray evidence of myeloma and 8 of these had multiple bone lesions.

Anemia was present in all of these patients at the time of admission and was progressive in 9 patients, although 8 of these received multiple blood transfusions. A markedly elevated sedimentation rate was present in all but one patient, and the average was 96 mm. per hour. Bence-Jones protein was demonstrated in the urine of 6, hypercalcemia in 6, and hyperglobulinemia in 9 of these patients. The lowest globulin level was 3.3 grams per cent, and the highest, 11.5 grams per cent, with an average of 6.6 grams per cent. Seven patients had albuminuria, and of 10 who had non-protein nitrogen determinations, two were elevated and both of these patients died of uremia.

The diagnosis was established by bone marrow aspiration in 8 of these 11 cases, by surgical bone marrow biopsy and bone marrow aspiration in 1, and by surgical bone marrow biopsy alone in 1. The diagnosis was corroborated by autopsy in 4 cases.

Therapy and Results

In addition to symptomatic and supportive measures, two of the patients received X-ray therapy, two others received X-ray plus stilbamidine, and four were treated with urethane. Both X-ray and stilbamidine gave temporary relief of pain but apparently had no effect on the course of the disease. The results with urethane were variable. The first patient received a total dose of only 35 grams because she

Tabular Summary of 11 Cases of Multiple Myeloma
Treated at the Veterans Administration Hospital, Louisville, Kentucky

Patient	JMH	JNV	GOT	LAB	HD	FS	AC	AVB	EF	JFS	ICT
Age	66	41	36	62	52	62	55	48	59	61	71
Admitting Complaint	BP	BP	SE	AP	BP	BP	BP	BP	BP	BP	BP
Adm. Rbc.	3.5	3.5	3.3	3.3	3.2	3.7	2.0	3.9	3.7	3.3	2.8
Adm. Hgb.	11	12	9	8	8	13	5	-	13	10	7
Progressive Anemia?	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Sed. Rate	100	86	111	139	120	72	145	9	108	120	42
Adm. Alb.	2.8	3.3	3.0	0.4	2.2	2.4	1.0	1.5	3.6	3.6	2.6
Adm. Glob.	5.0	4.9	4.8	11.5	5.3	7.9	6.2	9.9	3.3	3.9	10.0
B-J Protein	Neg	Pos	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos
N.P.N.	36	26	22	-	122	38	24	29	55	43	60
Calcium	11	17	15	15	10	15	12	14	16	12	11
Phosphorus	2.6	5.5	4.3	-	4.0	3.7	3.0	3.6	4.0	3.2	3.4
Acid Phosphatase	3.1	5.0	-	-	1.1	-	-	2.5	0.5	3.1	-
Alkaline Phosphatase	3.8	2.8	4.9	-	4.7	3.1	3.3	-	3.4	1.2	4.4
Albuminuria	2+	Neg	Neg	Neg	4+	4+	4+	Neg	1+	Tr.	1+
X-ray Lesions	mm	mm	No.	mm	mm	mm	mm	mm	mm	s	mm
Bone Marrow Diagnostic?	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bone Biopsy Diagnostic?	Yes	Yes	-	-	-	-	-	-	-	-	-
Treatment	X	X	U	U	U	N	N	X	U	X	N
	S	S									
	T	T		T	T			T	T	T	T
Response to Treatment	?	+	?	No	?	No	No	?	+	+	No
Present Status	d	d	w	d	d	?	d	d	d	w?	d

BP — bone pain

SE — swollen eyes

AP — anginal pain

— — not done

mm — multiple bone lesions

s — single bone lesion

X — x-ray therapy

U — urethane

N — narcotics

S — stilbamidine

T — blood transfusions

d — dead

w — well

w? — clinically well but has

x-ray evidence of multiple myeloma

developed severe nausea and vomiting. However, the patient improved, anemia cleared, and she was well when last seen, 24 months after treatment. The second patient was having frequent anginal attacks which were related to his anemia, and after a month's treatment with urethane no improvement was noted and the patient died. The third patient, who received 4 grams daily for 10 weeks, gained weight, felt better, and ate well, but pathological fractures developed and the patient died soon after the drug was discontinued. The fourth patient received 2 grams daily for about 11 months. Definite subjective improvement was noted and bone marrow studies showed response, but X-rays showed gradual progression of the osteolysis and the patient died 20 months after treatment was started, nine months after urethane was discontinued.

Eight of these patients died in the hospital and three were discharged. Two of the latter felt well when seen in August 1951, although one had albuminuria and X-ray evidence of a lesion of the right femur which had not progressed during the eight months of observation. The second of these patients never had any X-ray evidence of multiple myeloma although two pathologists at different institutions made a diagnosis of this disease on the basis of bone marrow studies. The third patient has not been back to the hospital and the status of his disease is not known.

This series of cases is too small to draw any conclusions as to the origin of multiple myeloma, the value of certain clinical and laboratory findings, or the prognosis, but in general it correlates very well with larger reported series.

A tabular summary of these cases is shown on the preceding table.

Summary and Conclusions

A summary of the clinical and laboratory findings in multiple myeloma has been given, together with a review of the literature relative to treatment. In addition, the clinical features, laboratory findings, and response to treatment of 11 cases treated at the Veterans Administration Hospital, Louisville, Kentucky, have been reviewed.

In general it may be stated that multiple myeloma is a disease of many and varied manifestations; that despite treat-

ment with roentgen rays, radioactive isotopes, antimony compounds, stilbamidine, pentamidine, urethane, and adrenocorticotrophic hormone, the clinical course is usually a rather rapid down-hill one; and, that no cases of cure have been established.

BIBLIOGRAPHY

1. McIntyre, Wm.: *Med.-Chir. Tr.*, Vol. 33, p. 211.
2. Bence-Jones: *Philosoph. Tr. Roy. Soc., London*, Vol. 1, p. 55.
3. Dalrymple: *Dublin Quart. J.*, Vol. 2, p. 85.
4. Rustizky: *Deutsche Ztsch. f. Chir.*, Vol. 3, p. 162.
5. Kahler: *Wien-med. Presse; Prag. med. Schnschr.*, Vol. 14, p. 33.
6. Geschicter, C. F., and Copeland, M. M.: *Archives of Surgery*, 16: 807-863.
7. Rubinstein, M. A.: *Blood*, 4: 1049-1064, 1949.
8. Bayrd, E. D., and Heck, F. J.: *Journal of the American Medical Association*, 133: 3, January 1947, p. 147.
9. Fowler, W. M., and Gordon, J. D.: *American Practitioner and Digest of Treatment*, 1: 449-459, 1950.
10. Harrison, T. H.: *Principles of Internal Medicine* p. 1231, 1950.
11. Tennent, W.: *British Journal of Surgery*, 32: 471-476, April 1945.
12. Breitenbucher, R. B., and Hertzog, A. J.: *Minnesota Medicine*, 32: 986-988, 1949.
13. Atkinson, F. R. B.: *Medical Press*, 195: 312, 1937.
14. Lichtenstein, L., and Jaffe, H. L.: *Archives of Pathology*, 44: 207, 1947.
15. Ackerman, L. V., and del Regato, J. A.: *Cancer-Diagnosis, Treatment and Prognosis*, p. 1009, 1947.
16. Garland, L. H., and Kennedy, R. R.: *Radiology*, 50: 297-317, 1948.
17. Anda, L.: *Acta Radiologica*, 33: 6, June 1950.
18. Snapper, I.: *Journal of the American Medical Association*, 133: 3 Jan. 1947, p. 157.
19. Haedicke, I. A., and Greenspan, E. M.: *American Journal of Clinical Pathology*, 19: 634-638, July 1949.
20. Propp, S.; Gorham, L. W., and Kantor, S.: *Blood*, 4: 36-53, 1949.
21. Rubinstein, M. A.: *Blood*, 9: 1068, 1949.
22. Haines, R. D.; Powell, W. N., and Bailey, H. A.: *Southern Medical Journal*, 44: 6, June 1951.
23. Berman, L., and Axelrod, A. R.: *American Journal of Clinical Pathology*, 18: 104-129, February 1948.
24. Loge, J. P., and Rundles, R. W.: *Blood*, 3: 201, 1949.
25. Harrington, W. F., and Maloney, W. C.: *Cancer* 3: 253-271, March 1950.
26. Lawrence, J. H., and Wasserman, L. R.: *Annals of Internal Medicine*, 33: 41-56, July 1950.

Important messages are presented in the advertisements of our Journal each month. New products are announced from time to time, and information is presented regarding the use of products featured. Other types of ads emphasize services rendered and commodities offered that may be used in your practice, in your office, and in your home. Doctor, you can rely on the statements and facts presented. We aim to include only ethical advertisements. Please tell the advertisers that you saw their advertisements in the Journal of the Kentucky State Medical Association.

Diet and Arteriosclerosis. With Special Reference to Coronary Arteriosclerosis*

ALFRED STEINER, M.D.

New York

Arteriosclerosis is the most important disease in the U. S. as indicated from recent mortality statistics¹ as well as in other countries that have a comparable diet and mode of living. Because of the widespread anatomical accidents resulting from reduction of blood flow to vital organs, i.e., the heart, brain, kidneys and extremities, caused by arteriosclerosis, it is understandable that premature general application of experimental procedures for the treatment of arteriosclerosis are advocated. This has resulted in a difference of opinion regarding the desirability of restricting dietary cholesterol and other fats in the treatment of arteriosclerosis, especially in coronary arteriosclerosis.

The significance of diet in the pathogenesis of arteriosclerosis is not agreed upon by all investigators. The proponents of the low cholesterol, low fat diet have presented data suggesting that the incidence and severity of arteriosclerosis among the peoples of the world vary directly with the ingestion of fatty foods. In addition recent studies, both clinical and experimental, have indicated that patients with arteriosclerosis, especially coronary arteriosclerosis, have an abnormal serum lipid pattern^{2,3,4}. For these reasons, the application of experimental results of dietary restriction has been advocated in the clinical management of patients with arteriosclerosis both prophylactically and therapeutically. The opponents of this type of dietary treatment state that the results of such studies are as yet inconclusive. Although the serum lipid pattern may return toward normal there has been no clear cut evidence that the arteriosclerotic process in humans has been affected. Likewise, it has been shown that animals on a low cholesterol diet can synthesize cholesterol from other food elements⁵. It therefore seems worth-

while to review the problem to attempt to determine if restriction of fat and cholesterol should be advocated in arteriosclerosis.

Observations on Significance of Cholesterol

However, before considering the status of restrictive diets in arteriosclerosis, it would be of interest to review briefly the evidence linking a disordered lipid metabolism with arteriosclerosis. The emphasis on the significance of cholesterol in the development of arteriosclerosis results from the following observations:

1. Windaus⁶ in 1910 showed, by chemical analysis, that the arteriosclerotic plaque in humans is made up largely of cholesterol and cholesterol esters.

2. Anitschoff⁷ in 1913 produced lesions resembling human arteriosclerosis in the rabbit, an herbivorous animal, as the result of hypercholesterolemia secondary to a high cholesterol diet. Recent studies^{8,9} from our laboratories have demonstrated that arterial lesions in dogs, similar in distribution and microscopic appearance to human arteriosclerosis, resulted from hypercholesterolemia induced by cholesterol and thiouracil feeding. The arteriosclerosis in dogs meets the objections that have been raised by many observers to comparing experimental arteriosclerosis in rabbits to human arteriosclerosis.

3. Certain disease states—namely, poorly controlled diabetes, glomerulonephritis, xanthomatosis, that have premature and widespread arteriosclerosis are frequently attended by an increase in serum cholesterol.

Differences in Serum Lipid Pattern

The serum lipid pattern in patients with coronary arteriosclerosis has been the subject of extensive study in our and other laboratories^{10,11,12}. It is now generally accepted that the serum lipid pattern of patients with coronary arteriosclerosis differs from that of normal subjects in a number of respects:

1. The serum cholesterol levels are higher and more inconstant.

*From the Research Service, First (Columbia University) Division, Goldwater Memorial Hospital and the Department of Medicine, College of Physicians and Surgeons, Columbia University, New York, N. Y.

This investigation was supported in part by grants from the U. S. Public Health Service, the Albert and Mary Lasker Foundation, the Thomas Phillips Fund and the Public Health Research Institute of the City of New York.

Read at the Kentucky State Medical Association, Louisville, Kentucky, October 7, 1952.

2. The serum lipid phosphorus is also elevated. However, the increase in serum lipid phosphorus is not proportional to the increase in the serum cholesterol resulting in a disturbed serum cholesterol/lipid phosphorus ratio. This is considered significant in that it has been indicated by experimental studies that serum lipid phosphorus is important in maintaining cholesterol in solution. Also in preliminary studies in our laboratories it has been found that the total serum lipids and serum neutral fats are elevated in patients with coronary arteriosclerosis¹³. In addition to these chemical abnormalities of the serum lipid pattern of patients with coronary arteriosclerosis, deviations from the normal have been found by physical methods. Gorfman and his co-workers have demonstrated¹⁴ the presence of giant size lipo-protein molecules in the serum in high concentrations in patients with coronary arteriosclerosis. Also Barr and his co-workers¹⁵ have shown that in patients with coronary arteriosclerosis the normal protein-lipid relationship in plasma is disturbed.

Effects of Lipotropic Agents and Dietary Control

Attempts to correct the abnormal serum lipid pattern of coronary artery disease have been centered on the lipotropic agents and the low cholesterol, low fat diet. Numerous lipotropic agents (choline, inositol, etc.) have been carefully studied in our laboratory and a significant effect on the abnormal serum lipids in patients with coronary arteriosclerosis has not been demonstrated¹⁶.

Since Leary¹⁷ in 1936 advocated the low cholesterol diet to prevent or control arteriosclerosis, numerous studies have appeared, especially in the past several years, presenting data intended to confirm or deny the significance of diet in the pathogenesis of arteriosclerosis. In a consideration of the experimental studies in animals, it should be noted that experimental arteriosclerosis has not been initiated without the production of an elevation of serum cholesterol by dietary means. Experimental arteriosclerosis does not develop in the absence of abnormal serum lipid pattern. Horlick et al¹⁸ have reported that low fat diets did inhibit the spontaneous arteriosclerosis of chickens. In studies¹⁹ from our laboratories, it has been shown that arteriosclerosis lesions produced in dogs regressed and were no

longer visible grossly as a result of the discontinuance of the high cholesterol-thiouracil diet. Characteristic lesions were produced in animals after six months of hypercholesterolemia following the feeding of cholesterol plus thiouracil, after which time some of the animals were returned to the stock diet (low cholesterol, low fat diet) for four months. The serum lipid pattern returned to normal after one week of the stock diet. When the animals were examined after four months of stock diet feeding, the gross lesions that were still present were less distinct, in that the lesions were flatter, with indefinite borders that blended imperceptibly into normal intima. Sections from normal appearing arteries revealed scars of pre-existing lesions. It would then appear that in experimental arteriosclerosis in animals, the cholesterol content of the diet is of major significance.

The reports in the literature relating to the influence of diet in arteriosclerosis in humans falls into two groups. The first are studies of pathology showing the incidence of arteriosclerosis in various parts of the world, attempting to correlate the presence or absence of arteriosclerosis with diet. The second group consists of clinical studies on the effect of low cholesterol, low fat diets on the serum lipids, as determined by chemical or physical means.

Geographic Incidence and Diet Relationship

There is much evidence now available indicating that in parts of the world where the diet is low in cholesterol and other fats, the incidence of arteriosclerosis is less than in countries such as the U. S. A. It does not appear that social, climatic or other influences can be related to incidence and severity of arteriosclerosis in certain races such as the Chinese or the African Negro, but a difference in diet and nutrition play the important role. At the University Hospital in Japan¹⁵ during the past five years, only five individuals with myocardial infarction secondary to coronary sclerosis were observed. Three of the five patients were Americans. Well documented reports from other countries, Okinawa, Central America and Puerto Rico, appear to bear this out. Studies made on poorly fed individuals whose diets were especially low in fats, during World War II also suggest that arteriosclerosis is related to diet, in

that the incidence of myocardial infarction in Norway²⁰, was reduced by approximately 50% during the war period, as compared to pre- or post-war statistics. Overnutrition and obesity are generally associated with increased arteriosclerosis, whereas undernutrition and wasting disease favor a diminished amount of arteriosclerosis. This has been demonstrated by Wilens²¹ in a series of autopsies in which he found increased arteriosclerosis in obese individuals and less than the average incidence in people who were below average weight.

Clinical Dietary Studies

Dietary studies have been carried out in two groups of patients in our clinic. In the first, 20 patients with well demonstrated bouts of coronary thrombosis were placed on a low cholesterol, low fat diet after an initial four months of control study. The patients were ambulatory and followed in the out-patient department. Butter, cream, egg yolk, fatty meats and cheese were excluded from the diet. Skim milk was allowed. It was estimated that diets contained less than 300 mg. of cholesterol and 50 gms. of fat daily. The patients were studied for periods of four to 26 months during the low cholesterol, low fat program. Serum cholesterol determinations were made bi-weekly or monthly by the method of Schoenheimer and Sperry²². In 13 of the 20 patients a decrease of more than 10% between the average of the control period and the average of the low cholesterol, low fat diet period occurred. In the remaining 7 patients, in which the difference between the average of the control and diet period was less than 10%, six showed a fall and in only one patient was there an increase during the dietary study. In addition to the fall in serum cholesterol in the patients with coronary arteriosclerosis, there was considerably less fluctuation in the serum cholesterol pattern approaching that seen in normal subjects.

The second group of patients, followed by members of the Hypertension Study Section of the Columbia Research Service of the Goldwater Memorial Hospital, was 41 individuals with hypertension who, after an initial control period²³, were placed on the Kempner Rice Diet. This diet contains no cholesterol and less than 5 gms. of fat. In this group there was an average decline of 40 mg.% during the rice

diet program in 35 of the 41 patients. These results were similar to those of other workers. Kempner²⁴ has reported that in 363 patients with initial serum cholesterol levels of over 220 mg.% there was an average drop of 74 mg. after treatment with the rice diet. In 148 patients with initial levels below 220 mg.% the average decline was only 15 mg.%.

Sera from 7 patients on the rice diet were examined in the ultracentrifuge by Dr. John Gofman. In contrast to marked decrease in level of Sf 10-20 class molecules which Gofman states is effected by a conventional low-fat, low-cholesterol diet, the rice diet resulted in substantial increases in the Sf 10-20 level in 3 patients without change in 3, and a decrease in one.

It should be pointed out that the rice diet is extremely severe and would not be adhered to by the average patient. However, the results of these studies do provide useful experimental data.

Criticisms of Restrictive Diet

There have been some reports which fail to demonstrate a significant lowering of serum cholesterol by diet^{25,26}. In certain of these studies normal individuals were used rather than patients with abnormal serum lipids. In others the degree of fat or cholesterol restriction was inadequate. Keyes²⁷ feels that in normal individuals an intake of less than 200 mg.% of cholesterol daily is necessary before a significant decrease in serum cholesterol occurs. If low cholesterol, low fat diets are to be employed it would be desirable to restrict their use to individuals with serum cholesterol levels in excess of 250 mg.% or with abnormal serum cholesterol/lipid phosphorus molar ratios. These studies should be confined to carefully controlled groups rather than to the general population until accurate, reliable information is available.

A second criticism of low-cholesterol, low-fat diets is the ability of the body to synthesize cholesterol from other food substances (proteins and carbohydrates). Studies of this nature have been confined to animals and there is no information available as to whether this conversion occurs in man and if it does to what extent it is taking place.

A third criticism of the restrictive diet program is the lack of knowledge as to whether or not in humans the return of the lipid pattern toward normal is asso-

ciated with a reversal or control of the arteriosclerotic process. In a single report, Morrison¹² has reported a direct influence of diet on arteriosclerosis in favor of a diminished mortality in a group of coronary patients as compared with a control group on a normal diet. However, the number of patients followed was not large and adequate data not presented so that further careful clinical investigation of this problem is still necessary. Gorfman and his co-workers¹⁰ have reported that myocardial infarctions are more apt to recur in patients whose lipo protein pattern remains abnormal. The return of this pattern toward normal induced by a low-fat, low-cholesterol diet served to protect against recurrent infarction in a series of patients studied for one year. Further similar studies are in progress in other laboratories so that sufficient additional information will be available for critical evaluation in the near future.

Summary

The influence of a low-cholesterol, low-fat diet has been studied in animals and humans. It has been demonstrated that in dogs a regression of cholesterol-thiouracil induced arteriosclerotic lesions occurs when the serum lipids return to normal. In patients with coronary arteriosclerosis and hypertension, a restricted dietary program for cholesterol and fat results in a lowering of the serum cholesterol level and a return of the lipid pattern towards normal. Adequate information in humans is not available to determine if this dietary program will reverse or control the

arteriosclerotic process. Studies of this general nature should be considered experimental and general application should await more conclusive information.

REFERENCES

1. U. S. Public Health Reports, Vol. 68, Jan. 1, 1953.
2. Steiner, A. and Domanski, B., Arch. Int. Med., 7, 397, 1943.
3. Steiner, A., Geriatrics, 6, 209, 1951.
4. Gertler, M., Garn, S. M., & Levman, J., Circulation, 2, 205, 1950.
5. Rittenberg, D. and Block, K., J. Biol. Chem. 184, 311, 1944.
6. Windaus, A., Ztschr. F., Physiol. Chem., 67, 174, 1910.
7. Anitschkoff, N., Beitr. Z., Path. Anat., V. S. Allg. Path., 56, 379, 1913.
8. Steiner, A. and Kendall, F. E., Arch. Path. 42, 433, 1946.
9. Steiner, A. and Kendall, F. E., Bevans, M. Am. Heart J., 38, 34, 1949.
10. Gorfman, J. W., Jonas, H. B., Lindgren, F. T. & Lyon, T. P., Circulation, 2, 161, 1950.
11. Barr, D. F., Russ, E. M. & Eder, H. A., Am. J. Med. 11, 480, 1951.
12. Morrison, L. M., J. A. M. A., 145, 1232, 1951.
13. Steiner, A. Unpublished data.
14. Jones, H. B., Gorfman, J. W., Lundgren, F. T., Lyons, Am. J. Med., 11, 358, 1951.
15. Personal communication.
16. Steiner, A. and Mathers, J. S., Unpublished data.
17. Leary, T. Arch. Path. 21, 119, 1936.
18. Horlick, L., Katz, L. N., Stamler, J., Am. Heart J., 37, 689, 1949.
19. Bevans, M., Davidson, J. D. & Kendall, F. E., Arch. Path., 51, 288, 1951.
20. Dedichen, J., Strom, A., Adelson-Jenson, R. and Closs, K., 5th Conference on Factors Regulating Blood Pressure, 1951. Josiah Macy, Jr., Foundation, N. Y.
21. Wilens, S. L., Arch. Int. Med., 29, 129, 1947.
22. Schoenheimer, R. & Sperry, W. M., J. Biol. Chem., 106, 745, 1934.
23. Watkin, D. M., Froeb, A. F., Hatch, F. T. and Gutman, A. B., Amer. J. Med. 9, 441, 1950.
24. Kempner, W., Am. Int. Med., 311, 821, 1949.
25. Wilkinson, C. F., Blecha, E. & Reimer, A., Arch. Int. Med., 85, 389, 1950.
26. Gertler, M. M., Garn, S. M., White, P. D., Circulation, 2, 696, 1950.
27. Keyes, A., Mickelson, O., Miller, E., Chapman, C. B., Science, 112, 79, 1950.

Acting on the shortage among trained medical record librarians, the June session of the A.M.A. House of Delegates gave sanction to a temporary training program for medical record technicians to work under supervision of a qualified medical record librarian. Essentials as approved provide for training of high school graduates with nine months instruction in anatomy, medical terminology, secretarial practice, and medical record procedures. Applications for approval of new schools should be submitted to the Council on Medical Education and Hospitals, 535 North Dearborn Street, Chicago 10.

Expansion of its interests was indicated by the Student American Medical Association at its June national convention in resolutions directed at the intern and pre-medical student. One resolution called for a special committee to prepare a report on the National Intern Matching Plan, Inc., for publication in the S.A.M.A. Journal. Another encourages local chapters to set up high school advisory committees to counsel pre-medical students. Three new chapters were admitted to the roster, bringing the total to 63.

Depression As An Early Symptom of Severe Physical Illness

C. H. CRUDDEN, Ph.D., M. D.*

Veterans Administration Hospital

Louisville

A depression as one of the symptoms of illnesses primarily organic, is well recognized. Daniels, for instance, found depression an important complication in 10 of 23 cases of diabetes mellitus he studied. Strecker, Ebaugh and Ewalt noted that depression is often associated with cerebral arteriosclerosis, pregnancy, parturition, pellagra, uremia, influenza and post-influenza state. In a study of 30 successive admissions for encephalitis, they report six were typical depressions, two of whom made suicidal attempts at the onset of their illness. Alvarez states that in carcinoma of the pancreas the patient will often be anxious, depressed, weepy, apprehensive and have unexplained insomnia. In the early stages his symptoms may be confused with those of a nervous breakdown. Mulder and Daly, in 100 cases of temporal lobe lesions, report that depression was the most common symptom in 16% of these patients.

A Way of Reaction

Rather than a disease entity, it would, perhaps be more accurate to consider depressions as a way of reaction of some individuals to stress, whether this stress be external or internal, physical or mental, or a combination of these factors. That this reaction can occur so severely in what is primarily a physical illness that it may mask underlying pathology, is a real possibility.

Case Presentations

This is emphasized by two cases that have recently come to our attention in which depression was an early symptom, one of the most acute symptoms, and in fact, the symptom that caused the patient to be referred to the hospital. In both of these cases, the initial routine physical, neurological and laboratory examinations showed a minimum of findings. It was only after repeated examinations with close collaboration of the psychiatrist and the other medical specialties that the basic

disease entity was recognized as primarily somatic, and appropriate therapy instituted.

First Case

The first patient, a 26-year old, single, white, professional man, came to the Neuropsychiatric Clinic of the Veterans Administration Hospital, Louisville, Kentucky, with the chief complaint of depression, lethargy and difficulty in concentrating for approximately one month. He gave a history of his fiancée breaking their engagement in favor of another approximately six weeks previously. He became depressed, but had not sought medical help previously, as he had expected to get over the depression. However, his symptoms continued and he was finally referred to this hospital.

Past and family history were largely non-contributory. Patient was born and raised in North Carolina, received his AB in a central Texas College and his AM in northern Ohio. He then had assumed his present position in Kentucky. He had enjoyed lifelong mental and physical health.

Mental examination on admission showed an untidy, friendly, cooperative individual who appeared greatly slowed down in all his mental processes. Stream of speech was slow. Patient appeared to have difficulty in thinking, needing considerable concentration to answer other than simple questions. Affect was fairly appropriate. Suicidal ideas could not be elicited. Memory for recent and past events was fairly good although, at times, his story about personal events was vague. Calculation was poor considering the patient's formal education. Orientation for time and place were only grossly correct.

Physical examination showed a tall, somewhat untidy, asthenic, fairly well developed individual appearing his stated age of 26. The findings were essentially negative except for some dehydration of the mucous membranes and skin. Initial positive neurological findings were limited to strabismus of the right eye. Patient explained this finding in that he had had this defect as long as he could remember, and had been told by his parents that it

Read before the Kentucky Psychiatric Association Sept. 27 1952.

*Psychiatry Department, Medical School, University of Louisville.

was due to a birth injury. Blood pressure, temperature, pulse, routine blood count, urinalysis, and chest X-ray were all within normal limits.

Patient was admitted 3/4/52 to the open ward of the Psychiatric Service for further study with a tentative diagnosis of depressive reaction.

Observation during the two days following admission brought out the following facts: The patient was quite lethargic and spent most of his time in bed. He did not mix with other patients. He appeared confused at times and easily became lost if he ventured a few steps from his ward. His temperature was within normal limits and his appetite was good. Because of the confusion, the question of possible organic etiology was raised and on the third day of admission, an electroencephalogram was run. This proved to be grossly dysrhythmic and suggestive of a subcortical expanding lesion. History of recurrent attacks of blurred vision was then obtained.

Neurological examination at this time revealed a slight stiffness of the neck which the patient had not noticed prior to the examination. Kernig's sign was negative. Patient appeared rather clumsy in fine movements of both hands and was unable to balance successfully on one foot. The fundi, considered normal at the initial examination, were now thought to be suggestive of a papilledema. The impression at this time was that the patient might have a frontal lobe tumor.

Spinal tap was then done which showed initial pressure of 340 mm of water, 495 WBC, 80% polys, 20% lymphocytes, greatly increased protein, first zone gold curve and negative complement fixation test. The neurologist and neurosurgeon were consulted, and it was felt that the probable diagnosis was tuberculous meningitis and that the patient's depression was primarily a symptom of this organic illness.

Patient was transferred to the Neurology Service for further treatment. Here both the spinal fluid and sputum were repeatedly examined by smear and culture for acid fast bacilli, and one sputum culture was reported positive. Spinal fluid cultures (2) for fungus and predominating organism (1) were both reported negative as well as repeated smears for torula.

The patient was treated with intramuscular and intrathecal streptomycin. In-

trathecal streptokinase had to be discontinued because of severe reaction. The patient's level of consciousness varied from alertness to stupor frequently throughout his illness but he slowly progressed downhill. He was deaf by 4/20/52 and blind by 4/25/52. He developed pyelonephritis and expired 5/14/52, seventy-one days after his original admission. The clinical diagnosis was tuberculous meningitis. However, on post-mortem examination, it was found that the patient actually had suffered from coccidioidomycosis of the meninges, and it was this, rather than tubercle bacilli, which had caused his illness.

Second Case

The second patient was a 31-year old white, married business man, who came to the Neuro-Psychiatric Out-Patient Clinic of the Veterans Administration Hospital, Louisville, Kentucky, 5/27/52 with the chief complaint of depression, lassitude, guilt feelings and inability to work for approximately three months. He gave a history of feeling well until some time in February 1952, when he rather suddenly began to feel marked depression and lassitude.

The onset of these symptoms was coincident with the patient's having a marked temporary increase in business responsibilities. Patient worried unduly about his work and had difficulties in concentrating. He finally felt he could continue no longer with his work and went to bed where he spent most of his time before admission here. His wife reported that the patient showed insomnia, anorexia, feelings of guilt at being unable to support his family, had many somatic complaints, and showed undue concern about his bodily welfare, as well as a marked deterioration in personal hygiene.

Family history was contributory in that his mother had died in a mental hospital and a maternal uncle had had prolonged hospitalization for a mental illness. Personal history indicated that the patient was always a quiet, conscientious, ambitious individual who had made an excellent marital adjustment until his present illness, with no remarkable previous physical or mental illness.

Mental examination on admission showed a schizoid individual who literally gave off a pervasive atmosphere of gloom. He was apathetic, almost monosyllabic, and ambivalent. He admitted to suicidal

thoughts recently but apparently had not planned any method of carrying them out. He was guarded in his replies, gave information only with great reluctance and appeared anxious to terminate the interview. Mood was one of deep depression. Stream of speech was slow and hesitant. He gave the impression of being slowed down in all his mental processes. He apparently did not realize his condition and constantly protested that he did not need hospitalization, that he was not sick, and could go back to work, although he had done no work for the three months previous to admission. He had difficulty in concentrating and showed a marked ambivalence about coming into the hospital.

Initial physical examination showed a fairly well-developed and fairly well-nourished, untidy, long-haired, drab-appearing, myopic individual. Physical examination was otherwise negative except for several superficial, tortuous veins over the anterior medial aspect of the abdomen and upper chest. The liver did not appear enlarged or tender.

Neurologic findings were negative. Blood pressure, temperature, pulse, blood count and urinalysis were within normal limits. Cephalin flocculation two plus in 24 hours, three plus in 48 hours.

Because of his suicidal ideas, the patient was admitted to a closed ward 5/27/52 for further study with a tentative diagnosis of schizoid-affective reaction, depressed type. In the routine work-up that followed, the chest X-ray done 6/3/52 reported—"In the right hilus is a rounded mass 5 cm. in diameter. The right diaphragm is somewhat elevated, but there is no displacement of the heart. Further studies will be necessary to rule out bronchogenic carcinoma."

The Medical Department was then consulted. Circulation time, arm to tongue, was found to be prolonged (22 seconds), and the venous pressure in the neck elevated (27 cm of water). The patient was presented to the Chest Board 6/4/52. The Board declined to hazard any further diagnosis but recommended further chest studies and a biopsy of a lymph gland if one could be found. Patient was scheduled for an axillary lymph gland biopsy 6/11/52.

On 6/9/52, he was transferred to the NP open ward as it was felt he was no longer a serious suicidal risk. Up to the time scheduled for the biopsy, the patient

was quite ambivalent about signing permission for the operation, and finally, just before going to the operating room, he flatly refused to consent to any surgical procedure, stating he dreaded being cut on, even for a minor operation, saw no use in the operation and neither desired or would consent to any treatment. Repeated discussions with the patient by the psychiatrist, the internist, and the patient's wife were of no avail.

Because of this impasse, he was presented to one of our psychiatric consultants. In the staff discussion that followed, it was concluded (1) that the patient needed certain medical procedures including a lymph node biopsy, and lack of this treatment might greatly endanger his future health, and even his life; (2) that his depression was so severe it was impossible for him to make rational decisions for himself; and (3) that his wife should be informed of the Staff's opinion. An opportunity should be given to her to petition for a commitment should she so desire, in order that the patient could obtain adequate treatment by her consent rather than his.

The wife was first interviewed by the patient's physician when the opinion of the Staff was discussed with her. She was quite anxious that the patient receive all possible help, and indicated her willingness to petition the court for a commitment if patient refused to cooperate with his treatment. A three-way conference involving the patient, the patient's wife, and the psychiatrist was then held where the first two points were emphasized to the patient and he was further informed that if he further refused treatment, his wife would petition for a commitment, which commitment, if granted, would take all decisions out of his hands. He was, therefore, urged to cooperate and sign permission for the biopsy. This he did.

A biopsy was taken the following morning. The pathologist reported it to be probably neoplastic.

The patient was then transferred to the Medical Service, where, because of his fear and hostility towards psychiatrists, the psychiatrist remained in the background and the internist's role was emphasized. Here, under the judicial use of leaves of absence, tolerance and patience at the outbursts of uncooperativeness of the patient, and an exhibition of continued interest in the patient's physical

and mental welfare, the depression gradually disappeared. He was now described as a friendly, cooperative, and an "ideal patient." Unfortunately further investigation showed widespread metastasis. X-ray therapy was instituted with some temporary relief. The patient finally expired in January 1953 without any evidence of a recurrence of his original depressive symptoms although he was aware of the type and seriousness of his illness.

Summary and Discussion

In summary, two cases are reviewed in which the initial presenting and predominating symptoms were those of a depressive reaction and the initial examinations led to the conclusion that the illness was primarily a psychiatric one. Further observation and studies, however, showed that the illnesses were primarily somatic in nature, one a meningeal coccidioidomycosis and the other a mediastinal neoplasm.

These cases again emphasize that a patient with "mental" symptoms who presents himself for treatment needs as careful a physical examination and as continued an alertness on the part of his physician for possible changes in his physical makeup as the patient whose symptoms appear primarily organic.

It is rare to find a patient whose illness is primarily psychiatric, who does not also have physical factors contributing to that illness, and the philosophy of treating every patient for both the mental and physical aspects of his illness adds greatly

in restoring him to health.

Essentially, when an individual is presented with a stress situation, regardless of whether it be his boss, his mother-in-law or his gall-bladder, he reacts to it in the only way he knows how—a way conditioned by an intricate combination of his inherited make-up, both mental and physical, plus the modifications this initial mental and physical make-up has undergone as a result of past experience. The picture the patient presents to his physician is, therefore, this complex combination, the various factors of which must be carefully evaluated and each treated according to its degree of malfunctioning.

One case reviewed, by reason of his severe depressive state, refused all treatment until, with the cooperation of his nearest relative, legal measures were contemplated which would have transferred the decision of taking treatment from the patient to those more competent to make such decisions while the patient was exhibiting his mental symptoms.

Finally, close collaboration is needed between the psychiatrist and the other branches of medicine not only in order to evaluate accurately the true basis of the patient's illness, but also to give that patient the best therapy possible.

REFERENCES

- Alvarez, W. C. Nervousness, Indigestion and Pain, 1943. p 258; p 417.
- Strecker Ebaugh and Ewalt. Practical Clinical Psychiatry, 6th edition, 1947. p 136, p 195 ff.
- Mulder, D. W. and Daly, D. Psychiatric Symptoms Associated with Lesions of the Temporal Lobe J.A.M.A. Vol. 150, No. 3, Sept. 20, 1952 pp 173-176.

Publication of the book PHEOCROMOCYTOMA AND THE GENERAL PRACTITIONER announced in the June Journal was erroneously attributed to the Ciba Pharmaceutical Products, Inc., of New Jersey. The review should have stated that the publishing source is the DeCourcy Clinic, Cincinnati 2, Ohio, to whom all inquiries on the book should be directed.

Physicians in the United States have donated over one million dollars to medical education since January 1. Approximately 11,000 doctors have contributed \$800,000 to the American Medical Education Foundation, and records from 33 of the nation's 79 accredited medical schools show 8,217 have contributed \$301,426 directly to their alumni funds. From these

figures 9.9 per cent of the nation's physicians have contributed this year toward relief of the financial stress in medical education.

Doctor, when you peruse the advertising pages of the K.S.M.A. Journal, remember all advertisements are carefully screened—items, services, and messages are committee-accepted, and our standards are of the highest. The advertisers selected our Journal for use in their promotional programs because they like our Journal, and your patronage encourages its continued use. In turn the advertisers help us produce a high-type Journal. When you send the companies inquiries, please tell them where you read their advertisements.

SPECIAL ARTICLES

ABUSES OF VOLUNTARY HEALTH INSURANCE

ELDEN D. BAUMGARTEN, M.D.

Detroit

EDITOR'S NOTE: *The following is an excerpt from a talk delivered at the County Society Officers Conference of the Kentucky State Medical Association in Louisville, March 5, 1953. Dr. Baumgarten discussed the whole philosophy behind the Blue Cross - Blue Shield movement. He specified that its one objective is "adequate hospital and medical care at a price people can afford to pay."*

Expressing the view that present premiums "are about as high as they may go without an adverse effect on new subscriber enrollment," Dr. Baumgarten discussed the elements involved in reducing costs. Because of the special interest physicians should have in how certain abuses enter into these considerations, the concluding portion of his paper is reproduced in full.

About a year ago, I became interested in the question of Blue Cross abuse by physicians. I made a rather cursory study of the situation in our hospital, a 185 bed institution. The results were very revealing. I found that there were 26 patients who had been in the hospital two weeks or longer. Of these twenty-six, 19 had Blue Cross coverage. I studied the charts of these 19 carefully and in my opinion only three had, by any stretch of the imagination, a good reason to be in the hospital, and all sixteen remaining were ambulatory.

Five were patients with casts of some sort for fractures, several waiting for cast changes and X-ray checks a week or ten days hence. Three were diabetics under control, two of whom were there because they felt they had no better place to go. Two were ambulatory heart cases, well compensated. One had had a tonsillectomy and was later to have a hemorrhoidectomy but was biding his time and resting in the hospital because his surgeon could not get a boarding for another week. Two were post-operative getting dressings every other day. One was getting X-ray

treatments for a sub-acromial bursitis. One was a man 80 years old who was irrational and incontinent and had been brought in because the family wanted to spend a Merry Christmas without the trouble of having grandpa around. One was a cirrhosis of the liver and having a paracentesis done every ten days. One was a case of so-called rheumatoid arthritis being treated with cortisone.

This last case was to me the most flagrant instance of abuse on record. This physician unwittingly documented it perfectly and signed it. There were ten orders written for leave of absence from the hospital. One to attend a banquet at the Statler Hotel and several I know were for entire weekends at home. This case cost Blue Cross \$733.00 and Blue Shield \$106.00. He was in the hospital 32 days.

After I had gathered this information, I went before a staff meeting the following day with some rather pertinent statements. By noon, we had fifteen discharges.

There were other types of abuses also. Orders were written for expensive antibiotics in large doses and multiple varieties and never discontinued. Large numbers of unrelated laboratory tests were ordered seemingly to make an impressive appearance on the chart. Prescriptions for expensive drugs were written and filled for the patient to take home and charged to Blue Cross. Fictitious admitting diagnoses were made to get the patient admitted for prolonged diagnostic workups, and so on almost indefinitely.

This rather superficial study was reported at a Board meeting and as a result a more detailed study was made at a much larger hospital. The following findings were reported:

This committee reviewed 1,276 cases admitted to the hospital during the month of January 1951. These cases were studied in regard to age, admitting diagnosis, length of stay in the hospital prior to sur-

gery, complications, findings at surgery, treatment while in the hospital, discharge diagnosis, and length of stay in the hospital. As a result of this review of individual cases, the following findings were reported:

- (1) Sixty patients took up 560 hospital days for diagnostic purposes only. The investigative studies on these cases could have been done either at the doctor's office or as an out-patient case. In addition to these, there were sixteen cases or 165 hospital days, that did not require hospitalization for any apparent reason.
- (2) Sixteen patients took 393 hospital days for X-ray Therapy and Physio-Therapy only.
- (3) Twenty-four patients took up 133 hospital days in unnecessarily long pre-operative preparation.
- (4) Twenty-four patients took up 167 hospital days in unnecessarily long post-operative preparation.
- (5) Twelve medical patients took up 155 unnecessary days in prolonged care for the medical condition.
- (6) Nine orthopedic cases took up 47 hospital days while ambulatory and not needing hospitalization.
- (7) Some cases were admitted under a false acute diagnosis in order to get the patient into the hospital for a check-up.

The above findings represent a misuse of approximately 1,700 hospital days for one month or approximately one-sixth of the capacity of the hospital.

To me, this situation is rather alarming. Certainly there is evidence of gross carelessness and negligence and some downright dishonesty. Some actuaries do not feel that it is very important because if one patient moves out of a bed, another moves in; and it makes no difference as to who the current occupant may be. I am hoping, however, that we may eventually again see an empty bed.

Now, what can *WE* do about this? I'm sure I do not know the answer, but I have some ideas on the subject. If what I have said about the fundamental nature of Blue Cross-Blue Shield is true, what I shall say now may be of some help in this situation.

We have suddenly found ourselves projected into an activity that is of most vital

concern to us, and upon its failure or success depends our profession, our personal welfare and maybe our very existence. That being true, it behooves us to assume a strong leadership and guide this most potent agency into proper channels, in the right direction, that its usefulness may be preserved for the people and that incidentally we may reap our own salvation. It is like a religion, and at the moment I can see the necessity for a lot of converts.

It is very easy to be a fair weather prophet, but what happens when the going gets rather rough? We have all taken our Blue Cross and Blue Shield for granted within recent times and trusted that the benefits derived therefrom would continue and become greater and greater. But changing social and economic conditions rapidly bring us to the day of decision when we must determine whether or not what we have achieved so far is worth fighting for and making sacrifices for. As previously pointed out, the Hospital and the Doctor are a team. According to our present day standards of living and treating the sick, one without the other becomes a sterile and inert entity. But of the two, the physician is the energizing factor using the other only as a means to an end. Therefore, the success or failure of Blue Cross-Blue Shield is largely his responsibility. It is the physician who determines utilization. He sends the patient to the Hospital, he writes the orders for expensive remedies and procedures. He determines the length of stay in the Hospital, and by the same token he determines the abuse of utilization that is inherent in these prerogatives. If Blue Cross is a success, it will be to the everlasting credit of the practitioner of medicine. If it is a failure, it will be due to his carelessness, selfishness, and lack of vision, and like the biblical Samson he will pull down upon himself the structure that has been built and become the instrument of his own destruction.

Each one of us individually is due for a searching, critical self-examination. Have we, the ones who must be the leaders, been entirely above reproach? If so, it at once becomes our duty as an individual and as a group to go back home and preach the gospel of Blue Cross and Blue Shield for what they are, to our colleagues who are less informed. From experience, I can tell you, it is not easy. The treatment

(Continued on page 377)

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

G. Y. Graves, Bowling Green.....	President
J. Duffy Hancock, 704 Brown Building, Louisville.....	President-Elect
Charles B. Johnson, Russell.....	Vice-President
W. O. Johnson, 605 Brown Building, Louisville.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville.....	Treasurer
Hugh L. Houston, Murray.....	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington.....	Vice-Speaker
Douglas E. Scott, Lexington.....	Orator in Surgery
Paul Simpson, Covington.....	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville.....	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate).....	1953
W. Clark Bailey, Harlan.....	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate).....	1954

COUNCILORS

	Term Expires
First District.....J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1953
Second District.....Walter L. O'Nan, 237 Second St., Henderson.....	1953
Third District.....De-mas M. Clardy, Hopkinsville.....	1953
Fourth District.....J. I. Greenwell, New Haven.....	1953
Fifth District.....Richard R. Slucher, Buechel.....	1954
Sixth District.....L. O. Toomey, Bowling Green.....	1954
Seventh District.....Branham B. Baughman, Frankfort.....	1953
Eighth District.....Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District.....J. R. Cummings, Flemingsburg.....	1953
Tenth District.....J. Farra Van Meter, 183 N. Upper Street, Lexington.....	1955
Eleventh District.....Hugh Mahaffey, Richmond.....	1953
Twelfth District.....Carl Norfleet, Somerset.....	1953
Thirteenth District.....Clyde C. Sparks, Mayo Arcade, Ashland, Chairman.....	1953
Fourteenth District.....Paul B. Hall, Paintsville.....	1953
Fifteenth District.....Edward Wilson, Pineville.....	1954

EDITORIALS

"AN ENCYCLOPEDIA OF NEW IDEAS"

Material of great value is often found in the most unexpected places. Our most worth while assets are oftentimes taken for granted.

The educational advantages inherent in our Technical Exhibit Hall—actually "an encyclopedia of new ideas"—is often overlooked and taken for granted by our members.

The latest in medicines, books, instruments, equipment, miscellaneous products and services—knowledge of which is of paramount importance to the conscientious practitioner who wants to render the best and most modern service to his patient—will be given you by able and ex-

perienced employees of reputable firms, whose products are "Council-approved."

From a practical standpoint, the exposition offers our members a rare opportunity to obtain necessary information on many matters at a minimum amount of effort.

It should not be overlooked that our sixty exhibitors, through rentals paid for their booth space, finance the scientific and business activities of the meeting, thus contributing to the progress of medicine in still another most substantial way.

Your attendance at each booth will accrue to the profit of all concerned—especially to you.

SINEWS OF VIRTUE

The 1953 Annual Meeting of the Kentucky State Medical Association, which memorializes Dr. Lewis Rogers, president of the Association in 1873, will again afford a singular opportunity for the advancement of medicine in Kentucky.

It is sometimes difficult to determine whether the greater pleasure comes to a K.S.M.A. member at the annual meeting because of the occasion it gives him to mingle again with his confreres from all over the Commonwealth, or because of the wealth of scientific material it provides him so that he can better care for his patients at home. In either case, experience at such meetings teaches that the net result is better medicine for the public.

The opportunity to grasp the hand of a long separated friend and exchange smiles and reminiscences is a welcome one. The warmth of good fellowship which is always an important part of annual meetings is good for a man. It does something to his soul. Its value to all should never be overlooked. But doctors are doctors, and before long, in such reunions, practical medicine comes in for its full share. This, too, is good. The fresh breeze composed of both friendship and different viewpoints serves not only the individual,

but the profession and the public, itself.

Add to this the excellence of the formal scientific presentations, bringing to every busy practitioner that information which he himself feels he needs most, and attendance at the annual meeting almost becomes a must to every physician able to tear himself away from his daily duties. If you have not already done so, turn now to the program for the 1953 scientific session. You will readily see that it offers a galaxy of talent. The men who speak bring much in scientific wisdom. Its benefits, however, can reach the public only through the channels which we, as practicing physicians, provide.

The technical exhibits and the scientific movies, too, are an important source of medical progress in Kentucky. The President's Luncheon and the Annual Banquet give a wonderful chance for social intercourse and inspiration.

As Izaak Walton said, "Good Company and good discourse are the sinews of virtue." Whether you are drawn to the 1953 Annual Meeting by the prospect of good fellowship or by the desire for the latest in scientific information—and we sincerely hope it is a combination of both, plan now to come if you can. We'll be looking for you September 22, 23 and 24.

WHAT DO PATIENTS THINK ABOUT FEES?

Harried as they have been by maliciousness and inaccuracies in many magazine articles, members of the medical profession are apt to overlook the many favorable discussions which appear in national magazines—especially those on medical economics and the relationships of the patient to his doctor. Among these is a piece in the July *Woman's Home Companion*, entitled, "How Much Should Your Doctor Charge?"

We recommend it to every physician, not only because of its sympathetic treatment, but because most, if not all of us, can benefit our own practice through reading it.

While the article gives sound advice to the patient who is concerned about what his medical bill will be, it also reveals interesting data on patient attitudes which may help the physician meet the layman half way in the problems of medical economics.

It cites, for instance, a study made by the Mecklenburg North Carolina Medical Society. Referring to Dr. David Goe Welton, president of this society which surveyed patient attitudes in Charlotte and several nearby towns, the article says:

"He knows, for example, that more than half the people queried were so awed by medicine's ultraprofessional aura that they thought it was improper to ask in advance what the doctor would charge. He also knows that despite this bashfulness, eighty per cent of the people would like itemized doctors' bills."

On the other hand, Edward Whitman, writer of the story, says: "I was surprised to discover, as I called on many doctors in many cities, that often they, even more than the patients, are the bashful ones. They get tongue-tied when they talk about money. That ultraprofessional aloofness, even that wave of the hand and the words,

'I never discuss fees—see my secretary,' often mask timidity. Such a doctor has not matured socially; he still feels guilty about charging a fee at all.

" 'The average student goes into medicine because he wants to be a humanitarian,' said Dr. H. Gordon MacLean, of Oakland, California, 'but it doesn't take him long to find out that he has to make a living. If the thought that a doctor is a dedicated humanitarian is deeply imbedded in his mind, there is a source of conflict that later in life will make it difficult for him to discuss fees.' "

Mr. Whitman has more to say on other aspects of the fee problem, so we repeat our recommendation that every physician should read this excellent article. In the foregoing excerpts, however, we have selected much of what he apparently regards as fundamental to the monetary problems in patient-physician relationships. The hesitancy by the persons on both sides of the doctor's desk to discuss fees almost insures that neither will be fully satisfied. This is bad for the doctor; it is bad for the patient.

The display of the A.M.A. plaque inviting patients to discuss fees, the itemization of statements, and the other devices to ease the money-caused tension between physician and patient may be important. Basically, however, they are probably but manifestations, where used, of the doctor's willingness to face up to the facts of life. Since the matter of money has loomed large as a source of patient dissatisfaction, it behooves us all to take the initiative in learning what the patient's problem is and to try and meet it squarely.

We can think of no better start than reading Mr. Whitman's article, in which he does such a good job of presenting to the public our side of the picture.

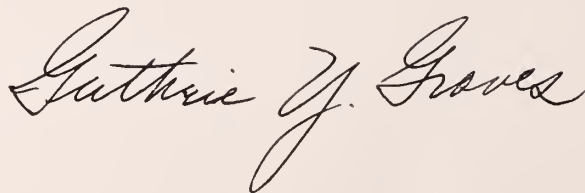
President's Page

The annual meeting of the Kentucky State Medical Association in September will be an outstanding one. The Committee on Arrangements has worked hard to give us a representative and interesting program, one in which every doctor in the state can find something of value. There will be nine distinguished leaders of medicine from other parts of the United States as well as our own Kentucky doctors who have been selected for their especial ability to present medical subjects of interest to us.

Our commercial exhibits are entirely filled. These deserve our support because they also have a message that may make our practice easier. In addition to this, they contribute largely to the financial success of the meeting.

Perhaps you have asked yourself why you should attend this convention. There are a number of excellent reasons:

1. It is your organization, and whether it is a success or a failure depends upon how each one of you supports it. Your attendance is vital.
2. The scientific papers and exhibits are good. You will perhaps get a new or different perspective upon some of your individual medical problems. The commercial exhibits, as mentioned above, will also merit close study.
3. The business of the state medical association will be transacted by your House of Delegates. Some of its decisions may affect the way that you practice medicine. Your local society will want to participate in this.
4. The opportunity to make new friends and revive old friendships will add to the pleasure of the meeting.
5. Finally, you need to break away temporarily from the routine of daily practice. Come, bring your family, and enjoy the advantages and the good fellowship of this, your own Kentucky State Medical Association.



PRESIDENT

ORGANIZATION SECTION

Headquarters Office Service To S.S. Group Withdrawn

Services rendered by the headquarters staff to the Kentucky Advisory Committee to Selective Service, which began back in 1950 with the enactment of the first "Doctor Draft Legislation" and the appointment of the committee, were discontinued July 1—with the expiration of that legislation.

The decision to withdraw these services was made by the Executive Committee late in 1952. Discontinuing the service was made necessary because of the rapidly expanding responsibilities of the headquarters staff which results from the growing activity of K.S.M.A. committees. In addition, the work of the Advisory Committee became heavy with the exhausting of the pool of Priority I and II men, by the various branches of the Armed Forces.

As this issue goes to press, plans for handling the work of the Advisory Committee to Selective Service have not been completed. Officials feel that it will be necessary to study the provisions of the new Doctor Draft act, which became effective July 1, before going ahead with new arrangements.

Third Diabetes Campaign Planned Under KSMA Direction

The 1953 diabetes detection drive, sponsored annually by the Kentucky State Medical Association, will be held from November 15 to 22, it has been announced by Carlisle Morse, M.D., Louisville, chairman of the K.S.M.A. Diabetes Committee.

The purpose of the annual campaign, which is carried on in co-operation with the American Diabetes Association during National Diabetes Week, is to discover as many previously undetected diabetics as possible. Each member of the K.S.M.A. will again be asked to give free urine sugar tests to all persons requesting it during the week of the drive. Testing materials will be provided through the American Diabetes Association.

Diabetes committees of county medical societies will assume the responsibility for organizing their own counties so as to assure maximum co-operation by K.S.M.A. members and full participation by the public. A state-

wide publicity campaign will supplement the efforts of the county medical society committees, Dr. Morse said.

The 1953 detection drive will be the third in Kentucky, all of which have been under K.S.M.A. sponsorship. "Its object is to discover as many as possible of the estimated 15,000 persons in Kentucky who are unknowing victims of diabetes so that they may enjoy the benefits of the control measures modern medicine now provides to the diabetic," Dr. Morse stated.

Other members of the K.S.M.A. Diabetes Committee are Luther Bach, M.D., Lexington, Herald K. Bailey, M.D., Ashland, Charles B. Billington, M.D., Paducah, George N. Burger, M.D., Covington, Guinn S. Cost, M.D., Hopkinsville, Marcus A. Coyle, M.D., Springfield.

Frank H. Moore, M.D., Bowling Green, Franklin B. Moosnick, M.D., Lexington, William R. Parks, M.D., Harlan, H. E. Titsworth, M.D., Clinton, and L. A. Wahle, M.D., Shelbyville

PR Course Attracts Interest Among Doctors and Their Staffs

The "PR" course for doctors' secretaries, which is now available through the Education Campaign Committee of the Kentucky State Medical Association, has been the object of interest by a number of physicians in the state, it has been reported by W. Vinson Pierce, M.D., Covington, chairman of the committee.

"It is anticipated that this course for secretaries, receptionists and other members of the doctors' staff who may be engaged in meeting the public will be instituted in co-operation with county medical societies in several parts of the state in the fall," Dr. Pierce said. "Busy members of our profession apparently recognize that it is difficult for them to observe fully and develop their staffs' techniques for meeting the patients. It is the expectation of the Education Campaign Committee that through this course both the quality and the manner of service provided the public by our office assistants can be improved."

As announced by the committee, it is expected that the three-session course or institute will normally be presented over a three-month

period. The course has been carefully reviewed by the committee and also by a selected group of girls experienced in patient-relation problems which arise in the office.

"It has been most pleasing to the committee," Dr. Pierce said, "to receive many letters expressing interest in the course from girls who are working in physician's offices as well as from doctors themselves. It demonstrates clearly that there is a need for such training and that the doctor's secretary is eager to take advantage of it."

Other members of the Education Campaign Committee are George F. Erockman, M. D., Greenville, Richard G. Elliott, Jr., M.D., Lexington, Wendell V. Lyon, M.D., Ashland, George W. Pedigo, M.D., Louisville, B. N. Pittenger, M.D., Paris, and Charles B. Stacy, M.D., Pineville.

Essential Provisions of New Doctor Draft Act Summarized

The new "Doctor Draft Act" signed by President Dwight D. Eisenhower on June 29, became effective July 1, 1953, and renews many of the general provisions of the old law, which expired June 30.

A summary of the new law, which will be known as Public Law 84, 83rd Congress, is carried below. This material was prepared by the Washington office of the American Medical Association, Frank E. Wilson, M.D., Director. Additional information may be obtained by writing the K.S.M.A. headquarters office.

Who Must Register Under the Doctor Draft Law?

All physicians, dentists and veterinarians not members of an armed service reserve component and under 50 years of age must be registered with their local draft board. They remain liable for induction up to age 51. Men on graduating from medical school have 10 days to register and ask for deferment for a year to complete internships. A physician must register under the doctor draft even though he has previously registered for the regular draft.

How Much Service is Required Under the Law?

Maximum service under the doctor draft is 24 months, which is required of all physicians who have had less than nine months of prior active duty. Graduated periods of service are provided for others as follows: 21 months if prior duty ranges between nine and 12 months, 18 months if prior duty ranges between 12

and 15 months, and 15 months if prior duty totals 15 or more months. The foregoing is applicable to reservists as well as registrants under the act.

In addition, priority 2 doctors with 17 or more months' service prior to entry on current duty are classified in priority 4, and no doctor with 21 months' prior service can be called during the life of the present act, except in time of war or national emergency declared by Congress. The law also requires release within 90 days of all men on active duty who would not have been called had the new law been in effect, but they must apply for release.

What Changes Are Made in the Priorities?

The new law continues the four priorities, but effects two changes of importance: (A) It lowers from 21 to 17 months the amount of active duty required to move a man from priority 2 to priority 4. (B) It credits all active duty of any nature subsequent to September 16, 1940, except as noted in next question (the old law credited only service performed subsequent to receipt of professional degree).

(Priority 1 doctors are those who either received all or part of their professional education at government expense or received educational deferments in World War II, and who served less than 90 days and 17 months—21 months under the old law. Priority 3 are men with no military service. All others make up priority 4. Priorities 1, 2, and 3 will be called before priority 4).

What is the Definition of Prior Active Duty?

The law defines active duty as time spent either as enlisted man or officer since September 16, 1940, or (1) active duty in Army, Navy, Air Force, Marine Corps, Coast Guard, and U. S. Public Health Service, (2) non-military duty prescribed for conscientious objectors, (3) wartime military service with any World War II ally of the United States, and (4) service with the Panama Canal Health Department during World War II.

Not counted as active duty is time spent under military auspices in (1) ASTP, V-12 or similar training programs, (2) intern, residency or other postgraduate training, (3) senior student programs prior to receipt of the appropriate degree, (4) active service performed for sole purpose of undergoing a physical examination, and (5) active duty for training entered into subsequent to enactment of the law.

Who is Eligible for Deferment?

Local boards, advised by state medical advisory committees to Selective Service, may

defer doctors for (1) essentiality to the community, (2) extreme personal hardship, (3) certain teaching posts in medical schools and (4) essential laboratory and clinical research.

Does Law Provide for Continued Equalization Pay?

The \$100-a-month equalization pay is continued for all commissioned physicians and dentists (except interns) while on active duty and is extended to veterinarians.

Is It Possible to Resign Commission?

Physicians obligated only under the doctor draft are discharged from their commissions on completion of active duty performed in carrying out doctor draft obligations, retroactive to cover all who have served a year or more since September 9, 1950 (enactment of original doctor draft law). Reservists who would be liable for doctor draft except for their membership in a reserve component may resign their commissions upon completion of the period of obligated service. However, permissive resignation is not extended to those who are obligated by law or contract to serve on active military duty or in training in a reserve component.

Pike County Sponsors Meet

Physicians from seven Eastern Kentucky counties and from Mingo County, West Virginia, met near Ashland on May 28 under sponsorship of the Pike County Medical Association. Principal speaker was Frank Princi, M.D., professor at the University of Cincinnati College of Medicine and head of the Kettering Foundation, Cincinnati, who, with other medical men from the university was studying occupational diseases in coal mining in Eastern Kentucky.

Fourth District Group Hears Three Guest Essayists at Lebanon

An attendance of 48 physicians, wives, and guests at a meeting of the Fourth Councilor District at Lebanon, July 9, has been reported by J. I. Greenwell, M.D., New Haven, councilor for the district.

G. Y. Graves, M.D., President of the Kentucky State Medical Association, extended greetings from the Association to those present. Scientific papers were presented as follows: "Treatment of Diarrhea in Children," by Kenneth P. Crawford, M.D., Louisville; "Medical Management of Hypertension," by Wilfred C. Gettelfinger, M.D., Louisville; and "Treatment of Breast Cancer," by Robert Tate, M.D., Louisville.

The Marion County Medical Society acted as host for the meeting. Duncan Salot, M.D., Lebanon, was toastmaster. In addition to Marion County, the district embraces Breckinridge, Bullitt, Grayson, Green, Hardin, Hart Larue, Marion, Meade, Nelson, Spencer, and Taylor counties.

Names Drs. Bailey, Gilbert And Pierce to School Group

Clark Bailey, M.D., Harlan, J. T. Gilbert, M.D., Bowling Green and Vinson Pierce, M.D., Covington, have been named by G. Y. Graves, M.D., Ewling Green, K.S.M.A. President, to serve a three-year term on the Medical School Advisory Committee.

Members whose three years expire in 1954 are:

George McClure, M.D., Danville
G. L. Simpson, M.D., Greenville
J. Vernon Pace, M.D., Paducah

Members whose three years expire in 1955 are:

Karl Winter, M.D., Louisville, Chairman
C. C. Howard, M. D., Glasgow
Charles A. Vance, M. D., Lexington

This committee was authorized by the Council at the request of the 1950-51 President, Sam A. Overstreet, M.D., Louisville. The committee's fiscal year is from July 1 to June 30.

Dean Moore Fund Committee Reports on Drive

Our experience to date with the Dr. John Walker Moore Professorship fund has been encouraging. We have received profitable suggestions from several physicians interested in the success of this enterprise. One proposed the formation of a society named for Dr. Moore in which a gift or subscription would provide a membership. Others have felt that each contributor should be given a good photograph of him in appreciation.

The issuance of an attractive certificate to each donor has been suggested. Your committee has discussed the merits of such proposals. We welcome any others and will surely plan some suitable token of gratitude which will be issued contributors. Plans are being made to maintain a booth in the exhibit hall during the annual meeting where subscriptions and contributions will be received. We will see you there.

J. Murray Kinsman
Spafford S. Ackerly
Sam A. Overstreet, Chairman

Kentucky Blue Shield Sets Record

T. O. Meredith, M.D., president of the Blue Shield Board of Kentucky, has announced that the Blue Shield Plan of Kentucky led all other plans in the United States and Canada in its size group in both numerical and percentage growth during the second quarter of 1953.

This is the second time that Kentucky Physicians Mutual, Inc., had led the Blue Shield plans in enrollment. During the quarter 17,578 new members were enrolled for a percentage growth of 11.5.

Dr. Simmons Appointed Advisor

Stanley T. Simmons, M.D., Louisville, was introduced at the July 2 meeting of the Board of Directors of the Physicians Mutual Insurance Company (Kentucky's Blue Shield plan) by the president of the Board, Thomas O. Meredith, M.D., as the new medical advisor to Blue Cross and Blue Shield in Kentucky. Dr. Simmons is replacing William A. Blodgett, M.D., Louisville, who recently resigned.

Frankfort Honors Its MD Mayor

C. T. Coleman, M.D., four-time mayor of Frankfort and a practicing physician for more than 40 years, was honored with a celebration of "Doctor Coleman's Day" by the people of Franklin County on his 71st birthday, June 6.

Governor Wetherby and other state officials joined thousands of Frankfort citizens in paying homage to Dr. Coleman. The special day was officially proclaimed by the Franklin Fiscal Court. Among those who participated in the festivities were an estimated 1,000 persons whom Dr. Coleman delivered at birth during his 46 years of practice. This represented about one-fourth of the total number of babies he has delivered as a general practitioner. Recognition, too, was given for his years of public civic service which are of equal number.

Digests Judge Curtis' Paper

"The Doctors' Day in Court," a paper presented by Judge L. R. Curtis, Louisville, of the Jefferson County Criminal Court, at the 1952 Annual Meeting, was digested and carried together with the Judge's picture in the May issue of **Medical Economics**.

Technologists Register 1,000 Here

Over 1,000 persons attended the annual convention of the American Society of Technologists in Louisville June 14 to 18.

The program included over 20 guest speakers in the scientific sessions and 12 papers by members of the society. The meeting was the twenty-first national convention of the group.

Miss Mary Benedict Clark, Louisville, was general chairman and Sister M. Simeonette Savage was program chairman.

Dr. Bate Heads Insurance Group

John T. Bate, M.D., Louisville, has been appointed chairman of the newly appointed Insurance Committee, G. Y. Graves, M.D., Bowling Green, K.S.M.A. president, has announced. The committee was authorized at a recent meeting of the Executive Committee of the Council.

Other members of the committee are: Arthur B. Barrett, M.D., Lexington, J. A. Bishop, M.D., Jeffersontown, Wm. McCormack, M.D., Bowling Green, Robert M. Sirkel, M.D., Martin.

New KSMA Members Welcomed

Fayette—Wallace E. Rich, Lexington.

Fulton—Richard H. White, Hickman.

Harlan—Robert B. Agee, Harry K. Ogden, Betty J. Schettler, and Gilbert H. White, Jr., Lynch.

Jefferson—Norman Glazer, Buechel; Israel Diamond and David W. Kinnaird, Louisville.

Muhlenberg—H. H. Hartleb, Drakesboro.

To Confer on Handicapped Children

The Kentucky Conference on Handicapped Children will be held at the Seelbach Hotel, Louisville, October 22 and 23, under the sponsorship of the recently formed Kentucky Coordinating Council for the Study of Handicapped Children and the Nemours Foundation, Wilmington, Delaware.

The meeting will feature nationally known authorities on its program, according to Neil Dalton, general conference chairman. Dr. A. R. Shands, Jr., medical director of the Alfred I. duPont Institute of The Nemours Foundation will serve as general adviser to the conference.

News Items

G. L. Baird, M.D., formerly of Indianola, Mississippi, opened an office in May at Bandana, Kentucky. Dr. Baird graduated from the University of Arkansas School of Medicine in 1949 and interned at the University Hospital in Little Rock. He had been practicing general medicine at Indianola for 33 months. The physician is the first in the community since the death of Ezra Titsworth, M.D.

John F. Berry, M.D., who has practiced general medicine in Cwenton for the past three years, closed his office in June to take up a residency in radiology at the Louisville General Hospital. He is a 1949 graduate of the University of Louisville School of Medicine, who interned at Good Samaritan Hospital, Lexington.

Joseph W. Fowler, M. D., has recently become associated with **Elliott Podoll, M.D.**, Louisville, in the practice of pediatrics. Dr. Fowler graduated from the University of Louisville School of Medicine in 1950 and interned at General Hospital. He completed two years residency in pediatrics at General Hospital and Children's Hospital, Louisville.

J. W. Somerville, M.D., left Maysville in June after practicing there since 1950 to establish a practice in Somerville, New Jersey. Dr. Somerville is a 1945 graduate of the University of Louisville School of Medicine.

William T. Mitchell, M.D., moved July 1 to Cloverport to establish his medical practice. Dr. Mitchell graduated from the University of Louisville School of Medicine in 1952 and interned at the St. Joseph Infirmary, Louisville. He will use the office formerly occupied by Joseph C. Denniston, M.D.

John E. Haynes, M.D., **Frederick A. Scott, M.D.**, and **Merle M. Mahr, M.D.**, have recently announced their association with **Faull S. Trover, M.D.** in the formation of a new clinic at Madisonville. Dr. Scott has been practicing general medicine at Madisonville since 1946, when he returned from the service. Dr. Mahr, a surgeon, who graduated in 1945 from

Cornell University Medical College is new to Kentucky. Dr. Haynes, who formerly practiced in Dawson Springs and Louisville, is a surgeon. He came to Madisonville July 1.

Roy McKee, M.D., has located in Winchester, having been in Wheelwright, Kentucky, since the first of the year. After graduation from the University of Louisville School of Medicine in 1949 and an internship at Louisville General Hospital, he returned to his home in Kansas City until last January.

Myron D. Miller, M.D., a 1927 graduate of the University of Louisville School of Medicine, was appointed medical officer in charge of the U. S. Public Health Service Hospital, Seattle, Washington, effective August 1. Dr. Miller was previously assistant chief, Division of Hospitals, Public Health Service.

Nelson D. Widmer, M.D., Lebanon, sailed on June 6 for Rotterdam to begin a three months European tour with his family. While abroad, he will attend the Congress of International League Against Rheumatism in Geneva and Zurich, Switzerland, and the British Medical Association in Cardiff, South Wales. Dr. Widmer attended the A.M.A. meeting in New York the week before he sailed.

ABUSES OF VOLUNTARY HEALTH INSURANCE

(Continued from page 368)

must be applied time and time again before appreciable results will become apparent. How you do it will be a matter of local expediency. I am sure that the prosecution of one individual, or the acceptance or rejection of a single case is definitely not the answer. But the answer does lie in a planned program to bring about, within the medical profession, realization of the significance of Blue Cross and Blue Shield as social programs, and the very important role it must play in their successful operation. The problem can be dealt with only through the medium of a carefully planned and consistent approach to the doctors.

County Society Reports

FAYETTE

The Fayette County Medical Society met March 10, 1953 in the auditorium of the Good Samaritan Hospital, Lexington.

Dr. C. C. Johnston gave the Presidential Address, entitled "Present Day Uses of Gastroscopy," with presentation of a new gastroscopic examining table.

Three new members were voted into the society: Doctors Lewis Francis, Harold Redd, and J. L. Vallandigham.

Dr. W. H. Pennington gave the Public Relations report on the motion picture entitled "Without Fear," that contained false and malicious implications. Dr. Rankin Blount discussed in detail the press code between the newspapers and the hospitals and proposed adoption of a code prepared by himself and Mr. Fred Wachs between the newspapers and the Fayette County Medical Society. Dr. C. E. Rankin asked about the patients' rights for privacy, and it was moved that the Society obtain the newspaper code of ethics. After discussion the motion carried.

Resolutions were prepared by Dr. Harry Herring and Dr. F. M. Massie on the death of Dr. William Marmaduke Brown. With the reading of the resolution it moved for adoption with the stipulation that it be spread upon the minutes of the Society, that a copy be sent to the family, and that a copy be sent with his picture to the Journal of K.S.M.A. The motion passed by affirmation of the Society standing for a moment of silence.

A liaison committee of the Society for an understanding relationship with the State Legislature was discussed by Dr. Rufus Alley. It was moved that an overlapping committee be appointed to include representatives of the Public Health and Legislative Committee and all other committees for the approved legislative action. Motion carried.

A letter was read from W. Logan Shearer, Jr., chairman of the 1953 Red Cross Fund Campaign, outlining the solicitation procedure for the medical profession of the county this year.

A letter was read from the Medical Society of the County of Erie, State of New York, asking the Society to take action it deems appropriate after consideration of two resolutions concerning the public law No. 779 or the "Doctor Draft Law." It was moved and carried that members of the Society vulnerable to military service consider the matter and report back to the Society. It was also moved that the

Society accept the veterans' decision of the resolution at the veteran physicians' meeting following adjournment of the Society as its own. Motion carried.

Dr. W. K. Massie discussed the need for a Rehabilitation Center. It was moved that a committee be appointed to determine the possibility of establishing a Rehabilitation Center in Lexington and to assist in its development. Motion carried.

John B. Floyd, Jr., M.D., Secretary

FAYETTE

The Fayette County Medical Society met April 14, 1953, in the Good Samaritan Hospital auditorium, Lexington.

Dr. William Maxson presented an apparent case of boric acid poisoning. The case was discussed by Dr. Wagner, who presented a simple spot test for boric acid. Comments were made by Doctors Ullin Leavell, C. M. McKinlay, and Lloyd Adams.

The paper of the evening was presented by Dr. Lewis Francis, and entitled "Current Trends in Anesthesia: A Brief Review of the Pharmacology of Anesthetic Agents. He commented that interesting points were developed in research work in the use of anesthesia in acidosis and coronary occlusions. Doctors Barss, Sprague, Rush, and Dorton discussed the paper.

Mr. Joe Sanford, executive secretary of K.S.M.A., spoke on the function and responsibility of the headquarters force of the state association. Comments and questions were directed to him by Doctors Maurice Kaufmann and J. F. Van Meter.

Dr. William Pennington gave the public relations committee report on legal liability of physicians in hospitals in the form of a letter from Mr. R. B. Goodlett, attorney. He said that the code had been adopted by both hospitals and that this report was presented for discussion.

During the discussion it was stated that the code should be rewritten by a physician as it appeared to have the newspaper point of view. The proposal was voted to be tabled. After considerable discussion it was moved and carried that the public relations committee meet and draw up another code and present it to the Society for approval. It was also moved and carried that the Society be recorded as disapproving the present hospital-newspaper code.

Clinical Results* with Banthine® Bromide

(Brand of Methantheline Bromide)

22 Published Reports Covering Treatment of 1443 Peptic Ulcer Patients with Banthine

Comprising the reports published in the literature to date which give specific facts and figures of the results of treatment

AUTHORS	No. of Patients	Chronic, Resistant to Other Therapy	TYPES OF ULCERS				RELIEF OF SYMPTOMS (Chiefly Pain)				Surgery or Complications ¹	Side Effects Requiring Discontinuance of Drug ²	EVIDENCE OF HEALING			
			Duodenal	Jejunal	Stomal	Gastric	Good	Fair	Poor	No Report			Complete	Moderate	None	No Report
Grimson, Lyons, Reeves	100	100	93	7			80	11	4		5		47		19	29
Friedman	15	15	14			1	5		4	6 ¹			2			13
Bechgaard, Nielsen, Bang, Gruelund, Tobrassen	26	26	21			5	16	4	6				8	6	12	
McHardy, Browne, Edwards, Marek, Ward	162		162				136	12	11		3	1	14	9	7	129
Segal, Friedman, Watson	24	34	34 ⁴				14	13			7	2	5		8	14
Brown, Collins	117	99	117				97	7	8		5	8	55	9	8	40
Asher	77		65		7	5	52	9	16			16		9	21	47
Rodriguez de la Vega, Reyes Diaz	5	4	5				4		1					3	2	
Winkelstein	116	116	102	8		6	102		14				53		18	45
Hall, Hornisher, Weeks	18	18	18				11		1	6 ¹			18			
Maier, Meili	38	38	24			14 ¹	27	7	4 ¹				10	2	5	21
Meyer, Jarman	25	18	25				21		4							25
Poth, Fromm	37	37	37				33	3	1				33	3	1	
Plummer, Burke, Williams	41	41	41				36		5				38		3	
McDonough, D'Neil	104	100	104				63	10	31			11	4		11	89
Brodors	60	60	58		1	1	35	19	6				10	1	49 ¹	
Legerton, Texter, Ruffin	11		11				11									11
Holoubek, Holoubek, Langford	76	69	76				35	27	10		4	10	26		10	36
Ogborn	42		39	2		1	42 ¹									42
Shaiken	48	48	48				33	10	3		2		33	10	3	
Johnston	145	145	145				143		2			2	143		2	
Rossett, Knox, Stephenson	146		141			5	146					4 ¹⁰	53			93
TOTALS	1443	968	1360	17	8	38	1142	132	131	12	26	54	552	52	179	634
PERCENTAGES		67.8	95.6	1.2	0.6	2.6	81.3	9.4	9.3			3.7	70.5	6.6	22.9	

1. Not included in tabulations.

2. Included in "Relief of Symptoms" as "Poor" and in "Evidence of Healing" as "None."

3. Four had no symptoms when Banthine therapy was begun.

4. Of which seven were penetrative lesions and five partially obstructive.

5. No symptoms were present in four.

6. Two with symptoms only; no demonstrable ulcer.

7. Three were psychopathic patients and one had a ventricular ulcer of the lesser curvature.

8. Roentgen findings after treatment period of two weeks; forty-seven had duodenal deformity.

9. All returned to work within a week.

10. In these four, after relief of symptoms, Banthine was discontinued because of urinary retention.

During the past three years, more than 250 references to Banthine therapy in peptic ulcer and other parasympathotonic conditions have appeared in medical literature. Of these reports, 22 have presented specific facts and figures on the results of treatment in a total of 1,443 peptic ulcer patients, 67.8 per cent of whom were reported as chronic or resistant to other therapy. These results are tabulated above and show:

"Good" relief of symptoms was obtained in 81.3 per cent of the 1,405 patients on whom reports were available.

"Complete" evidence of healing was obtained in 70.5 per cent of the 783 patients on whom reports were available.

In all but 9.3 per cent, relief of pain was "good" or "fair." In all but 22.9 per cent, evidence of healing was "complete" or "moderate."

During treatment, 26 patients required surgery or developed complications other than ulcer which required discontinuance of the drug before results could be evaluated.

Of the remaining 1,417 patients, only 3.7 per cent experienced side effects sufficiently annoying to require discontinuance of the drug.



*Volume containing complete references, with abstracts of 39 additional reports, will be furnished on request by

G. D. SEARLE & Co.
P. O. Box 5110, Chicago 80, Illinois

A discussion followed on the subject of medical education in Kentucky. Announcement was made of a proposed meeting on April 23 at the Pendennis Club in Louisville of a committee of 70 Louisville physicians, the Council of the Kentucky State Medical Association, and a committee of Lexington physicians on this subject. An expression from the Society was requested regarding the establishing of a medical school in Lexington. After some discussion on the questions of availability of patient material as affected by insurance and the UMW Welfare and Retirement Fund, and the source of finance for the medical school plan, the following motion was carried: that the Society be recorded as approving the idea of a medical school to be established in Lexington at the University of Kentucky, but that the University of Louisville School of Medicine not be jeopardized in any fashion.

It was moved and carried after further discussion that a committee of at least 12 men headed by Dr. J. S. Chambers be appointed to represent the Society at the Louisville meeting on April 23.

John B. Floyd, Jr., M. D., Secretary

JEFFERSON

The Jefferson County Medical Society met on May 18, 1953, in the Mirror Room of the Kentucky Hotel. There were 111 members present for dinner.

The meeting was called to order by the president, Arthur T. Hurst, M.D.

The president recognized new members elected April 20.

It was moved that the proposed amendment concerning the Fetal and Maternal Mortality Committee be approved. Carried.

The following new members were elected: Norman Glaser, M.D., David W. Kinnaird, M.D., and Patrick J. Murphy, M.D. All are associate members.

The president introduced Mr. Jean Clos, newly appointed executive secretary of the Society, who outlined areas of service to members which he plans to carry out.

Dr. Llewellyn in the absence of the Necrology Committee read a resolution on the death of Dr. Charles C. DeWitt, and members stood in tribute.

Dr. J. Murray Kinsman explained the proposed Rehabilitation Plan and stated that members of the Society would receive a letter setting forth details.

The secretary read a resolution on the death of Dr. R. Haynes Barr, president of the Ken-

tucky State Medical Association and stated that Dr. Hurst, president, sent a telegram to Mrs. Barr from the Society. Mrs. Barr's acknowledgement was read. Dr. Hurst said he thought it appropriate for the Necrology Committee to send a copy of the resolution to the family. He said the Society might consider making a donation to the library in which Dr. Barr was interested. Consideration was set aside for the next meeting.

Guest speaker was Gordon McKay Stevenson, M.D., from Summit, New Jersey, whose subject was "Group Practice: How It Works in One of Our Eastern Cities." He was introduced by Dr. David Cox.

Discussants were Carl H. Fortune, M.D., the Lexington Clinic, on "The Partnership Type of Group Practice"; Richard H. Weddle, M.D., the Somerset Clinic; "A Country Clinic"; Robert Long, M.D., Louisville: "Two Physicians Doing the Same Type of Practice"; Everett Baker, M.D., Louisville; "An Anesthesia Group Working in One Hospital"; and James Douglas, M.D., Louisville: "Three Physicians in X-ray Together."

Others who discussed the papers were Dr. E. L. Shiflett and Dr. J. D. Heitger.

A panel discussion on "Recent Concepts Concerning the Treatment of Carcinoma of the Breast" was announced for the next meeting.

John S. Llewellyn, M.D., Secretary

LETCHER

The Letcher County Medical and Dental Society met at the County Health office, Whitesburg, June 30. The following members were present:

Doctors Bert C. Bach, R. Dow Collins, Lundy Adams, Carl Pigman, and Lee Moore, (dentist).

After the minutes and unfinished business of the previous meeting were disposed of, a paper was read by Dr. Carl Pigman on "The Effect of Adrenals and Cortisone in Allergies." A general discussion followed.

The Society unanimously agreed that it was their desire to have the cancer Mobile Diagnostic Clinic visit Whitesburg this year.

Owen Pigman, M.D., Secretary

SCOTT

The Scott County Medical Society met on May 7, 1953, at the John Graves Ford Memorial Hospital, Georgetown. The following members were present:

Doctors F. W. Wilt, H. G. Wells, P. H. Crutchfield, E. C. Barlow, and H. V. Johnson.

It had to be good
to get where it is



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

The secretary read a letter from Dr. Bruce Underwood, secretary of the Kentucky State Medical Association, in regard to the death of Dr. R. Haynes Earr, president, in which he stated that no flowers were requested. He stated that a donation might be made instead to the memorial library to be established at the Owensboro Health Center in memory of Dr. Barr.

It was moved and carried that the Scott County Medical Society send a donation of \$10.00 to this fund.

H. V. Johnson, M.D., Secretary

SCOTT

The Scott County Medical Society met at the John Graves Ford Memorial Hospital in Georgetown on July 2, 1953. The following members were present:

Doctors F. W. Wilt, W. S. Allphin, E. C. Barlow, H. G. Wells, and H. V. Johnson.

Miss Beatrice Daniels, superintendent of the hospital, Mr. Pat O'Neil, medical student with the Health Department, and Dr. C. R. Lewis, met with the Society.

Dr. Lewis was elected to membership.

After dinner, the meeting adjourned to make a conducted tour of the new section of the hospital.

H. V. Johnson, M.D., Secretary

UNION

The Union County Medico-Dental Society met at Our Lady of Mercy Hospital in Morganfield, June 16, 1953. The meeting was called to order by D. V. Smith, M.D., vice-president.

The secretary read a communication from Thomas Crume, M.D., chairman of the K.S.M.A. Dental Committee with several recommendations for closer co-operation between the medical and dental associations.

The secretary read a letter of appreciation from Mrs. R. Haynes Barr of Owensboro for the contribution given by the members of the Society towards the Memorial Library fund.

Both Dr. Bartley and the secretary reported on the 2nd District Councilor meeting which they attended at Henderson, and reported that Dr. Andreasen was appointed secretary for the district meeting next year.

Speaker for the evening was Robert English, M.D., Henderson, who is a cancer specialist. He emphasized the importance of an optimistic attitude in the cancer patient, the careful selection of drugs, the physiology of

the patient. He said that surgery is more often giving way to other therapy.

The attendance was good.

A. W. Andreasen, M.D., Secretary-Treasurer

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met on May 12, 1953, with Dr. William R. McCormack, president, presiding. This meeting was held as a joint meeting with the Warren County Bar Association.

The most important items of mutual interest discussed were:

1. The question of determining the percentage of disability in injuries involving compensation insurance cases. There seemed to be a fairly general consensus of opinion that McBride's text-book should be considered as a reference.

2. The idea of the Circuit Judge's office obtaining medical testimony under a court order, thereby having the physician's opinion answerable to the Court. This was discussed at great length, but no general conclusion was reached.

3. The question of fees for the performance of autopsies. Apparently the consensus of opinion was that the fiscal court should bear this expense.

4. The proper procedure for obtaining the expert witness in behalf of persons unable to pay the usual fees charged by physicians.

5. The problem of the examination of patients being committed to state supported institutions.

6. Dr. G. Y. Graves called attention to legislation now before the Congress which would allow certain sums of money to be placed in endowment funds, or annuities, and be deducted from that year's net income for tax purposes.

Charles M. Francis, M.D., Secretary

Annual prizes of \$500, \$300, and \$200 will be awarded by the American Urological Association for essays on the result of some clinical or laboratory research in urology. Competition will be limited to urologists of ten years practice or less and to urologists in training. For particulars write to William P. Didusch, Executive Secretary, American Urological Association, 1120 North Charles Street, Baltimore 1, Maryland. The contest closes February 1, 1954.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

SEPTEMBER, 1953

NO. 9

Cardiac Arrest, With Report of Two Cases

W. H. PENNINGTON, M.D.

Lexington Clinic, Lexington, Kentucky

Cardiac arrest is a major surgical catastrophe which may occur at any time during any surgical procedure to an apparently normal patient undergoing a simple operative procedure. It is ominous, terrifying, and occurs without warning. There is no greater surgical emergency. Fortunately, it is of infrequent occurrence but is an emergency of the utmost importance to the operating surgeon. Whether there has been a marked increase in this condition in the past few years or whether the surgical profession has become more aware of it, is a debated point. Delay in recognizing this condition, and just as important, not instituting proper treatment immediately, means death of the patient. Accordingly it behooves the operating team, consisting of the surgeon, the assistant, and perhaps most important the anesthetist, to be constantly aware of this condition.

The period of cerebral anoxia which can be tolerated without permanent damage has been estimated between three and eight minutes but it appears that five minutes is probably the upper limit of safety. The heart is so constituted that it will regenerate after a much longer interval but the cerebral changes will be permanent and the result, after too long a period, will be a vegetative organism. Oxygen deprivation results in permanent damage to the nervous system first, the most sensitive cells being those of the cerebral cortex.

History

Schiff, in 1874, first demonstrated cardiac resuscitation by massage following cardiac arrest during chloroform anes-

thesia. The first attempt at cardiac massage in the human being was made by Nichaus in 1889, but was unsuccessful. The first successful restoration was done in 1901 by Igelsrud and in 1902 Starling and Lane recorded the first successful case.

Incidence

Cardiac arrest occurs in all types of surgery. It is more common in intrathoracic procedures but it occurs with relative frequency in abdominal, urological, gynecological, ear, nose and throat surgery, and in obstetrics. There are reported cases of cardiac arrest during tonsillectomies done under local anesthesia. Dale collected 312 cases which had occurred between 1906 and 1951. In these 312 cases there were 98 survivors making a recovery rate of 31%. Bost collected from the literature of the past five years 35 cases, 60% of whom had recovered following cardiac massage. Stevenson, Reid and Hinton have collected, analyzed and studied 1200 cases of cardiac arrest which have occurred throughout the world. Millet, et al, report one cardiac arrest death in every 858 anesthetics given at a Minnesota hospital, or 14 cardiac arrest deaths in 12,000 operations. A survey by Trent, in 1941, in 39,880 general or spinal anesthetics found there were 35 operating room deaths of which 27 were related to the anesthetic. Dillon reported 46 operating room deaths in 28,000 anesthetics administered by trained anesthetists between July 1946 and April 1948 in a general hospital. Six of these 48 deaths were due to cardiac arrest.

Etiology

For years we have been taught that the cause of cardiac arrest is oxygen deficiency during anesthesia. This deficiency

Read before the Annual Meeting of the Kentucky Surgical Society at French Lick, Indiana. May 16, 1953.

is supposed to stimulate the carotid sinus and the cardio-inhibitory reflexes. Procedures listed as causing oxygen deficiency are obstructed airways during the anesthetic, too deep premedication, too deep anesthesia.

At a recent meeting of the American Surgical Association, Dinsmore, in discussing a paper on ventricular fibrillation, said: "First of all, the patient is met in the operating room by a man with a scalpel and another fellow with a machine with everything on it but a sledge-hammer which he does not need, for he has done it with drugs and agents. The patient may be given some multiple barbiturates early in the morning followed by morphine, then by atropine, then a little bit of pentothal for induction and actually it is easier to place an endotracheal tube in if you use a little cocaine; then you give the patient some nitrous oxide, some ether, or some cyclopropane and after all this you are allowed to put on the drapes.

"Then you start to operate and the abdominal wall is rigid and the surgeon becomes rigid and the anesthetist limp; then you get some curare. You cannot tell me that all these drugs and agents are not factors. You simply add up to a multiplicity of drugs and to deep anesthesia."

According to Reid, Stevenson and Hinton anoxia alone cannot cause cardiac arrest. It slows the heart but does not stop it suddenly and dramatically as occurs in arrest. What then is the cause of sudden stoppage of the heart in a patient who has had good cardiac reserve, who is in good physical condition, on the operating table in the midst of an operation? The heart does not slow down but suddenly stops. Recent experimental work has shown that in the presence of hypoxia, stimulation of vagal nerve endings will stop the heart in systole.

In the auricles of the mammalian heart there is a type of specific tissue morphologically different from the myocardium but indistinguished anatomically from the remainder of the cardiac tissue. The unique feature of this tissue is its capacity to initiate stimuli. Another characteristic is that it can live for long periods without oxygen or blood and it regains its function as long as 72 hours after death. The vagus innervation to this specific tissue is restricted to the auricles, there being no vagal innervation of the ventricle. In

any of the organs in the body which are innervated by the vagus nerve, stimulation may set up a vago-vagal reflex and in the presence of hypoxia due to anesthesia, depress the ability of the specific tissue in the auricles to form contractions. Vagal stimulation having depressed specific tissue stimulus formation in the auricles, the automaticity of the ventricles is abolished and there is sudden and complete stoppage of contractions. "A heart under anesthesia is as vulnerable to vagal stimulation as a heart with diffuse organic lesions would be without anesthesia." This vago-vagal reflex may occur centrally over the vagal network; a stimulus going to the vagal center and from there through its efferent path to the heart, or by an axon reflex in the vagal system passing to the sympathetic system and thence to the heart without going to the central area. Stimulation of any vagal nerve ending may cause this vago-vagal reflex. Passing the bronchoscope may set up the reflex, removing foreign bodies in the respiratory passages, even spraying the throat, pressure on the carotid sinus, stimulation of the biliary passages, or in fact any irritation of any vagal nerve ending may set up a reflex which can affect the specific tissue in the myocardium. Anesthesia has a profound effect on this specific tissue and, to repeat, a heart under anesthesia is as vulnerable to vagal stimulation as a heart with far advanced organic disease. There is a simple, safe, and very effective drug which will prevent this vago-vagal reflex in all cases. This drug is atropine. According to Hinton, Stevenson and Reid, "Regardless of how successful or spectacular the most ingenious and technically perfect surgical procedure has been, or may be, surely it must be a sobering thought to realize that that particular emergency was preventable by such an old, safe and reliable therapeutic agent as atropine."

No attempt will be made in this paper to go into the pharmacology of atropine. In a broad general sense, the action of atropine is to block the release of acetylcholine at the vagal nerve endings and this blocking will minimize or actually prevent the autonomic reflex. Experimental work has shown decisively that the cardiac inhibition due to vagal stimulation is due to liberation of acetylcholine and that one of the actions of atropine is that of annulling parasympathetic

effects. It is believed to act directly upon the effector cell, preventing the action of acetylcholine. Atropine in full doses completely abolishes vagal action, an effective dose giving the same effect as if the vagi were cut. Its action reaches its maximum effect in 15-20 minutes, offers adequate protection for 40-45 minutes, and probably sufficient protection for 90 minutes.

Prophylaxis

Practically all cases of cardiac arrest can be prevented by careful attention to the following procedures:

- 1) Adequate oxygenation during the anesthetic. This may be obtained by the use of air-ways, intubation, and oxygen. In cases in which there is respiratory paralysis from either spinal anesthesia or curare, artificial respiration with forced oxygenation should be resorted to immediately.

- 2) The avoidance of profound anesthesia. Relaxation should be obtained by curare rather than by depth of anesthesia.

- 3) The use of local anesthetics or topical application to diminish the reflex irritability in the trachea and bronchial tree during tracheal intubation. Cautious use of drugs which sensitize the myocardium such as epinephrin and cyclopropane.

- 4) The invariable use of atropine in the pre-operative preparation of the patient.

Treatment

It is hoped that in the near future there may be some simple and practical method of resuscitation of the arrested heart but until that simpler procedure is available, the only known method of resuscitation is cardiac massage. In any case of cardiac arrest, prompt treatment must be instituted with no thought of delay if the patient's life is to be saved.

When cardiac arrest is recognized the responsibility is divided between the surgeon and the anesthetist. It is the surgeon's duty to open the chest immediately and begin massaging the heart. The anesthetist's duty is to insert an intratracheal tube promptly, if this has not already been done, and to give 100% oxygen under intermittent positive pressure. Without draping the patient or making any attempt at asepsis, the 4th or 5th interspace of the left chest should be hurriedly and boldly incised, cutting through all layers of the chest wall, nicking the

pleura and allowing the lung to collapse. Following this a liberal incision should be made, cutting through the costal-chondral junction if necessary, and a rib-spreader inserted. Then the right hand should be inserted into the chest cavity and the heart grasped. With the fingers posterior and the thumb anteriorly, vigorous, firm pressure should be made on the heart. The hand should then be relaxed and this procedure continued at a rate between 40 and 60 times per minute. In the majority of cases after a few brisk massages the heart will respond and start beating spontaneously. If the anesthetist is doing his portion of the job and keeping the lungs ventilated, oxygenated blood will then be forced into the brain even though the heart is not contracting automatically. Massage should be continued until normal rhythm and forceful contractions are assured.

Time factor is of extreme importance and it is imperative that all surgeons bear this most severe of complications constantly in his mind. Stevenson, Reid and Hinton point out that of the successfully and permanently resuscitated cases, 94% were massaged within the first four minutes and only 6% of the successful cases were massaged after a delay of four minutes and the severity of neurologic complications appears to be in direct proportion to the delay between arrest and massage.

After the heart is exposed and massage has been instituted there may be cases in which the ventricle goes into fibrillation. There is seldom doubt as to whether the heart is fibrillating or not. The fibrillating heart has been compared to a bag of wiggling worms. Most authorities agree that in fibrillation the procedure is to incise the pericardium while continuing the cardiac massage. Immediate defibrillation is not advisable and it is better to continue the massage until the cerebral vessels are being pumped full of oxygenated blood and until the heart itself is no longer cyanotic as a cyanotic heart cannot be defibrillated. Frequently intravenous procaine may cause reversion to normal rhythm; 5 c. c. of a 2% procaine solution should be injected directly into the ventricle. If the procaine does not restore the heart to normal rhythm, it will be necessary to defibrillate the ventricles by electric shock. The purpose of applying electric shock is to produce a strong simultaneous contraction of the incoordinated fibrillating muscle fibers. This is follow-

ed by a period of relaxation and a brief pause and then frequently normal contractions begin. The defibrillator need not be an elaborate apparatus. Ours has been made by the hospital electrician and is inexpensive. It consists of an adjustable resistance coil and uses 60 cycle, 110 volt alternating current. The electrodes were also made by the electrician and consist merely of large metal contact points connected to this resistance coil. The electrodes are placed in contact to the heart, one being placed on one side and one on the other. Three shocks of $1\frac{1}{2}$ to 2 amperes, each lasting for $\frac{1}{10}$ to $\frac{1}{2}$ of a second, at intervals of one second are usually sufficient to completely defibrillate the heart. If this does not stop the fibrillation, the electrodes should be removed, the heart massaged vigorously and forcefully for a minute or so until it is well oxygenated and then the procedure should be repeated. The electrodes should be placed firmly against the myocardium in order to provide contact and prevent sparking between the electrode and the heart.

In cases where the heart does not respond, Beck has advised the use of 1 c. c. of ephedrin and 5 c. c. of 1% calcium chloride injected into the right ventricle.

Our experience with cardiac arrest with treatment is limited to two cases. Perhaps there have been others which we have not recognized. Some of the cases of sudden death on the operating table which have been called status lymphaticus, coronary occlusion, apoplexy, drug reaction, or shock, may possibly have been cardiac arrest in which no surgical attempt at resuscitation was made.

Case Reports

Case 1. F. W. H. (No. 89-122), a 59-year old white man who since 1944 had been complaining of vague epigastric pain radiating into his left iliac region. He had been examined repeatedly, had had his stomach and gallbladder and colon X-rayed over a period of years and all examinations had been negative. On June 21, 1951, he was admitted to the Good Samaritan Hospital with a complaint of pain in his abdomen, acute onset in nature. X-ray taken the following day revealed a gallbladder full of stones. Physical examination was essentially negative except for tenderness in his right upper quadrant. His heart was normal in rate and rhythm. His blood pressure was

130/68. There were no murmurs. X-ray of his chest showed old healed tuberculosis in the right lung field with associated pleural fibrosis with no evidence of activity. Red count 5,250,000, hemoglobin 15 grams, white count 17,700 with 79% polys, 19% stabs. Blood sugar 160 mgm. %. Urine negative. On the twenty-sixth day of June his temperature and leucocytes having returned to normal, he was taken to the operating room, the diagnosis being acute cholecystitis with stones. Pentothal sodium and cyclopropane were administered. A right rectus muscle splitting incision was made, the bowel was packed off, and a large acutely inflamed gallbladder full of stones was found. The peritoneum over the cystic duct was incised and stripped down by blunt dissection and a right angle gallbladder forcep was applied. At this point the anesthesiologist notified me that the patient's pulse had stopped. This was verified by placing a hand on the aorta and no pulsation was felt. The patient's respiration and blood pressure, which had been perfectly normal until this instant, immediately dropped to zero. The head of the operating table was lowered and artificial respiration by the breathing bag was instituted. With no attempt at asepsis the drapes were removed and an incision was made through the fifth interspace in the anterior portion of the left chest. The pleura was incised and a hand was placed in the chest cavity. The heart was found to be at absolute standstill. With the thumb anterior to the ventricle and the four fingers posterior to it, rhythmic massage was instituted and after about five or six squeezes the heart promptly began its normal contraction. The chest was left open and the heart was watched until normal rhythm had been restored. Following this the chest was closed in layers without drainage. The cholecystectomy was then completed. The clamp was still on the cystic duct and this was tied and routine closure of the abdominal wall was done. Cardiac rhythm and pulse continued to be normal. The following day there occurred an episode of extra systoles. Electrocardiogram taken at that time showed nothing abnormal except the extra systoles for which quinidine was given and which controlled the condition. Three days later upon getting out of bed the patient's pulse became irregular and he was markedly short of breath. Examination showed a few crackles synchronous with respiration. It was thought

that this was due to a residual pneumothorax with mediastinal emphysema. Quinidine was resumed and the following day the patient was asymptomatic. Six days later he was up and about, his wounds were completely healed, his blood pressure was 142/76, and in order to prevent any further extra systoles he was sent home on gr. 3 of quinidine four times a day. He has been seen in the office several times since dismissal from the hospital and he has no symptoms referable either to his gallbladder or his heart or lungs. He is very proud of both of his scars and of his complete recovery from what he described as a harrowing experience.

Case 2. R. E. O. (No. 146-350), a 19-year old white woman was admitted to St. Joseph Hospital on October 18, 1952. Two weeks previously she had had a sudden severe pain in her chest and was admitted to another hospital. Examination there revealed mitral stenosis with acute bacterial endocarditis. Twenty-four hours previous to admission to St. Joseph she had a sudden paralysis and blanching of her right leg. It was felt that she had a saddle embolus as a result of the endocarditis superimposed on her mitral stenosis. Embolectomy was out of the question because of the patient's critical condition and so it was decided to treat her conservatively with anti-coagulants, hoping that her life might be saved by sacrificing her leg which was already dead. Examination revealed a 19-year old young married woman who was mentally deficient. She was deaf and dumb and grunted like an animal. Her entire right leg from mid-thigh distally was completely gangrenous. There was no evidence of inflammation, however. She had a low grade fever and a moderate leucocytosis. Under conservative therapy her general condition improved and after consultation with several cardiologists and internists it was decided that she should be left alone until her general condition improved. Ten days later she developed fever of 101 and the gangrenous area which had been dry, became moist and appeared to be extending. The opinion of all consultants was that operation was imperative. Under light pentothal anesthesia and pure oxygen inhalation the patient was anesthetized and an endotracheal tube inserted. Without a tourniquet the dead extremity was amputated at the junction of the upper and middle

thirds of the thigh. Below the amputation the vessels and the tissues were pale pink in color and the vessels were thrombotic and at the upper portion of the amputation stump dark red in color and the blood supply seemed to be fair. Anterior and posterior flap amputation was done and during the closure the patient gave a sudden gasp and her heart stopped beating. The anesthetist in the meantime was giving forced respiration with pure oxygen. Approximately four minutes after the heart stopped beating the left chest was opened by cutting through the 5th interspace and the costal cartilage. The heart was found to be absolutely still. Without opening the pericardium the heart was massaged and it began fibrillating. The pericardium was opened and massage was continued. Ventricular fibrillation began and then stopped and then auricular fibrillation began. Intracardiac procaine was given as well as an arterial transfusion. During this time the heart was massaged but the fibrillation continued. It was decided to defibrillate the heart by shocking it. Two shocks of 1½ amperes were given, each for ½ second. The heart went into strong rhythmical contractions and persisted for one to two minute intervals. This was followed by fibrillation. Shocking again was resorted to and good contractions were obtained. They faded away and then with manual massage they would be restored. This procedure was continued for approximately two hours, each time the heart would fade away and then would be restored by massage. At the end of two hours the contractions were weaker and responded less rapidly. Finally the heart would no longer respond to massage and the patient died.

Discussion

Our feeling is that any surgeon may be called on to save the patient who has had a cardiac arrest. Delay in deciding what to do, who is to do it, and how it is to be done, means that the patient will die while decisions are being made. We feel that the surgeon who is operating, whether he be an E. N. T. man, gynecologist, obstetrician, or an interne, should be the one to do the thoracotomy and institute massage immediately. We feel that all surgeons should be aware of this complication of surgery and familiarize themselves with the details sufficiently so that if called on, they will be ready. We feel that

the interne and resident staff should not only be instructed in these details, but encouraged to act with initiative and promptness, should the occasion arise.

Summary

1) Two cases of cardiac arrest have been presented—one recovering following massage and one dying in spite of heroic treatment by massage and defibrillation.

2) We feel that the cause of cardiac arrest is a vago-vagal reflex due to manipulation of vagal nerve endings during operation in the presence of hypoxia.

3) We believe that an adequate dosage of atropine will prevent the majority of cases of cardiac arrest.

4) We would like to stress the importance of thoracotomy and massage without delay in cases of cardiac arrest.

REFERENCES

1. Beck, Claude S. Resuscitation for Cardiac Standstill and Ventricular Fibrillation Occurring During Operation. *Am. J. Surg.* 54:273, 1941.
2. Bellegie, Nicholas J. Cardiac Massage for Cardiac Arrest During Surgery. *Proc. Staff Meet. Mayo Clinic* 27:305, 1952.
3. Best and Taylor. *Physiological Basis of Medical Practice*, Second Edition. Williams and Wilkins, Baltimore, 1939.
4. Dale, W. Andrew. Cardiac Arrest. *Ann. Surg.* 135: 376, 1952.
5. Dinsmore, Robert S. Discussion of paper by Johnson and Kirby. *Ann. Surg.* 134:680, 1951.
6. Ehrenhaft, J. L., Eastwood, D. W. and Morris, L. E. Analysis of Twenty-seven Cases of Acute Cardiac Arrest. *Jour. Thoracic Surg.* 22:502, 1951.
7. Effler, Donald B. and Sifers, Earl C. Cardiac Arrest. *Cleveland Clinic Quarterly* 19:194, 1952.
8. Gerbode, Frank, Editorial . . . The Cardiac Emergency. *Ann. Surg.* 135:431, 1952.
9. Glomset, D. J. and Cross, K. R. Morphologic Study of the Cardiac Conduction System. *Arch. Int. Med.* 89:923, 1952.
10. Hinton J. William, Stephenson, Hugh E., Jr. and Reid, L. Corsan. Editorial . . . Prevention of Cardiac Arrest. *The American Surgeon* 18:934, 1952.
11. Johnson, Julian and Kirby, Charles K. The Surgical Treatment of Ventricular Fibrillation. *Ann. Surg.* 134:672, 1951.
12. Kay, Jerome H. The Treatment of Cardiac Arrest. *Surg. Gyn. Obst.* 93:682, 1951.
13. Lahey, Frank H. and Ruzicka, Edwin R. Experiences with Cardiac Arrest. *Surg. Gyn. Obst.* 90:108, 1950.
14. Master, Arthur M., Moser, Marvin and Jaffe, Harry L. Cardiac Emergencies and Heart Failure. *Lea & Febiger*, Phil. 1952.
15. Nelson, Clarence E., Baba, M. A., Burden, Harold G. Cardiac Massage in Operating Room Deaths. *Surg.* 29:452, 1951.
16. Reid, L. Corsan and Brace, Donald E. Irritation of the Respiratory Tract and Its Reflex Effect Upon the Heart. *Surg. Gyn. Obst.* 70:157, 1940.
17. Reid, L. Corsan, Stephenson, Hugh E., Jr. and Hinton, J. William. Cardiac Arrest. *Arch. Surg.* 64:409, 1952.
18. Sloan, Herbert E. The Vagus Nerve in Cardiac Arrest. *Surg. Gyn. Obst.* 91:257, 1950.
19. Stephenson, Hugh E., Reid, L. Corsan and Hinton, J. William. Some Common Denominators in 1200 Cases of Cardiac Arrest. To be published.
20. U. S. Pharmacopoeia. 1946.
21. Young, W. Glenn, Jr., Sealy, W. C., Harris, Jerome and Botwin, Arnold. The Effects of Hypercapnia and Hyposia on the Response of the Heart to Vagal Stimulation. *Surg. Gyn. Obst.* 93:51, 1951.

Hazards of Antibiotic Therapy

JOHN S. LLEWELLYN, M.D.

Louisville

The extensive and widespread use of antibiotics, especially penicillin and the broad-spectrum varieties, can be appreciated best by studying the steadily rising sales charts of these products and realizing the many forms and combinations that are marketed by not one but several pharmaceutical houses. There is hardly a man, woman, or child alive in this country today who has not received one or more antibiotics in one form or another, at one time or another.

Perhaps a part of this extensive use can be attributed to the glamor and publicity surrounding the discovery of penicillin by Fleming in 1938. Heralded as one of the most outstanding medical discoveries of this century, the early experimental studies reported in the literature were most encouraging, but indicated the limited value of the new drug as a "cure all" in the field of bacterial disease. The

lay press in this country and Britain reviewing these articles made their own interpretations of the reported results and ignored the warning and pleas of the profession to avoid an over optimistic attitude regarding the drugs' therapeutic potentialities. The public in both countries had been whipped into a frenzied desire for the new "miracle drug" and the reports of excellent results obtained from its use during the war increased this strong desire to an almost hysterical demand. The concentrated efforts in this country and abroad during the war years increased the production of penicillin and with the war over and the needs of the military reduced, the public clamored for and received penicillin for just about every ailment known to man. Even reports of its efficacy in the therapy of duodenal ulcer were made and it soon became commonplace to find patients suggesting

penicillin therapy before the physician had an opportunity to make an examination or a diagnosis.

The same story applies as well to the discovery, introduction, and availability of the several antibiotics that have been introduced since penicillin. The lay press keeps the public well informed (or well misinformed) and the pharmaceutical houses manufacturing antibiotics enthusiastically and emphatically hawk their products to the gullible physician. Antibiotics in candy and in chewing gum are available and the latest therapeutic wrinkle—penicillin combined with aspirin for the treatment of the common cold!

Although used unnecessarily and without definite indication in many cases, there is no doubt concerning the value of these antibiotics. The decreased mortality rate in pneumonia from 35% to less than 5% attests to their value in this disease and their efficacy in reducing the 100% mortality of subacute bacterial endocarditis is well recognized. The usefulness of penicillin in the prevention of rheumatic fever is well established and patients with syphilis have benefitted greatly. An attempt is not made to detract from the value of these agents nor to discourage their use in indicated cases, but to emphasize the hazards associated with their use which occur whether the indications are clear cut or entirely absent.

New Knowledge of Hazards

During recent months much has been learned regarding these hazards: the emergence of new clinical syndromes during antibiotic therapy, the complications that follow, the toxic reactions and fatalities that result, and the bacterial resistance that develops are most important. If conscientiously and intelligently considered these hazards could be avoided in part and the wanton use of these valuable agents curbed to the advantage of the patient. A few simple words of explanation to patients regarding the hazards involved will decrease the frequency and fervor of the patients requests—requests to which the physician yields too frequently. The indications for antibiotic therapy should be clear cut—the administration of an antibiotic and the false sense of security it produces is no substitute for definitive diagnostic procedures.

The reaction of bacteria to antibiotics, *in vitro* and *in vivo*, varies considerably

and ranges from marked sensitivity through decreased sensitivity to total resistance and actual dependence—dependence of a pathogenic bacteria on the presence of an antibiotic for its growth. In some instances this alteration may proceed to the point at which the presence of an antibiotic stimulates the growth of pathogenic organisms. In developing resistance to an antibiotic certain strains of staphylococci are changed in form and may become rod shaped or they may lose their ability to grow anaerobically. Others become gram negative and fail to ferment sugars except glucose. (1.)

Recently a report from the Mayo Clinic (2.) has emphasized the importance of bacterial resistance and its variability depending upon current antibiotic therapy. Streptomycin resistance of the micrococcus pyogenes decreased rapidly during the period when streptomycin use was curbed in favor of newer and apparently more valuable antibiotics. However in 1951, with the popularization of the streptomycin-penicillin combinations cases of streptomycin resistant micrococci increased considerably. In 1949, all of the penicillin resistant strains of micrococci were found to be sensitive to as little as 0.78 micrograms of aureomycin; in 1951, after extensive clinical use of aureomycin 9% of all micrococcus pyogenes strains were resistant to more than 6.2 micrograms of aureomycin. A repetition of these studies in 1951 revealed 36% of all micrococcus pyogenes strains to be resistant to aureomycin. The majority of the strains were isolated from patients in hospitals using aureomycin and terramycin for the pre-operative preparation of bowel surgery cases. All strains of aureomycin resistant bacteria were also resistant to terramycin since the pattern of resistance produced for aureomycin and terramycin occurred whenever the organism was exposed to either antibiotic alone. Few chloramphenicol resistant strains were encountered because few patients had received this particular drug during the preceding 12 months. To the new antibiotic erythromycin, no naturally occurring resistance was found, but in two patients a strain originally sensitive became strongly erythromycin resistant after a short period of treatment.

Another interesting report (3.) of the increasing resistance of staphylococcus aureus in one area: from 1941-46 90% of the organisms were sensitive to one unit

or less of penicillin (in vitro) but from 1946-49 less than 50% of the organisms isolated from human infections were sensitive to the same degree and 25% were resistant to 15 units of penicillin.

Streptomycin differs somewhat in the pattern of resistance inasmuch as all sensitive organisms become streptomycin resistant rather rapidly and the resistance developed is permanent. Resistant organisms have been recovered from patients after only one day of treatment. This unusual pattern surely has some clinical significance related to the tuberculosis that will develop in young adults 15-20 years hence. Since it is generally conceded that adult tuberculosis is for the most part due to the breakdown or reactivation of childhood infections, it may be presumed that the future will bring more cases of streptomycin resistant tuberculosis inasmuch as childhood infections currently may be caused more and more by streptomycin resistant tubercle bacilli. (4.)

Possible Future Effects

The predicted effects of bacterial resistance in future tuberculosis may be exemplified in the present era by the many cases of antibiotic resistant bacteria isolated from cases of subacute bacterial endocarditis. It is significant to note that there has been no decrease in the mortality of subacute bacterial endocarditis during the past 5 years despite the increase in the number of available antibiotics. A smaller proportion of patients harbor penicillin sensitive streptococci and the incidence of enterococcal and penicillin resistant organisms is increasing. A high proportion of human cases have given cultures of staphylococci resistance to penicillin and some strains have been resistant to all antibiotics. (5.) If such resistance continues and progresses it is logical to assume that the mortality of subacute bacterial endocarditis may actually increase.

Another hazard in the use of antibiotics, although an indirect one, emphasizes antibiotic resistance and stems from the widespread use of broad spectrum antibiotics in the rations of livestock. (6.) The addition of antibiotics increases growth and produces rapid fattening of livestock and in animals so fed there have developed highly resistant strains of coliform organisms that have been transmitted in-

advertently to man. Highly pathogenic and resistant, these infections pose a difficult therapeutic problem.

Much attention has been given to the problem of cross resistance which has resulted from the indiscriminate use of antibiotics and has decreased the overall efficiency of antibiotic therapy. (7.) Bacteriological observations in this country and abroad indicate that acquired resistance to one antibiotic may be accompanied by decreased sensitivity to several other antibiotics. Such cross resistance develops during therapy and may occur with or without the development of superinfection. Cross resistance between aureomycin and terramycin is the most prominent and most common, even to the point at which these antibiotics are considered antagonistic and their use in combination is generally contraindicated.

Antibiotic antagonism relates largely to penicillin although others may be involved also. The effects of aureomycin, terramycin, chloramphenicol and even certain sulfonamides are antagonistic to penicillin by virtue of their altering the characteristics of the bacterial population and by decreasing growth and multiplication processes. In so doing the effects of penicillin are diminished or decreased because penicillin efficacy is directly proportional to the actively growing processes of a sensitive organism. Slowly growing bacteria and strains rendered static by other antibiotics are not destroyed by penicillin. Experimentally (8.) the demonstration of this antagonism has been supported in the induced penicillin sensitive infections of mice. With apparent adequate control studies, the mice treated with penicillin alone had a uniformly higher cure rate than those treated with penicillin plus one or more of the other antibiotics including terramycin, aureomycin, and chloramphenicol. Clinically there is also support of the antibiotic-antagonism thesis in several recent reports most important of which is that of Lepper et al. (9.) In the treatment of pneumococcic meningitis the death rate of patients treated with penicillin and aureomycin was more than twice as high as that of patients treated with penicillin in the same dosage alone.

Superinfections

The problem of bacterial or yeast superinfection during antibiotic therapy is a prominent one and is increasing. Fatal entero-toxic infections are probably most

common and during antibiotic therapy (especially oral terramycin and aureomycin given orally) the normal, bacterial flora of the intestinal tract is destroyed and resistant bacterial strains in the bowel itself or elsewhere, as in the respiratory passages, grow rapidly due to lack of competition for nutrition. *Micrococcus pyogenes* is the most frequent to grow out or superinfect and since its effects are locally irritating and systemically damaging through the absorption of an enterotoxin several fatalities have resulted. (10.) Because of this complication the routine use of terramycin and aureomycin in the pre-operative preparation of patients for gastrointestinal surgery has been abandoned in some clinics and these drugs are avoided insofar as possible in the treatment of pneumonia and chronic ulcerative colitis. (11.) For some time micrococcic enteritis responded to erythromycin but resistance to this antibiotic develops rapidly and resistant micrococci have been isolated. One wonders in considering the widespread and rapid development of bacterial resistance, how long the discovery of new antibiotics will keep us therapeutically ahead of infections and bacterial disease generally.

Superinfection is another well established hazard of antibiotic therapy. As early as 1951, 25 cases of clinical moniliasis were reported following the therapeutic use of penicillin, aureomycin, and chloramphenicol. (12.) While susceptible organisms are suppressed, non-susceptible organisms grow rapidly during antibiotic therapy. The suppression of the bacterial flora co-existing with *Candida* and competing for nutrition in the same substrate is the cause of the monilial overgrowth. In a study of 81 cases of bronchitis and bronchiectasis treated with broad spectrum antibiotics there was a significant increase in organisms resistant to the antibiotic used. (13.) Several deaths occurred from extensive pulmonary infection due to antibiotic resistant bacteria.

There is little clinical support of the observations of in vitro antibiotic stimulation of bacterial growth although there is evidence that some low grade febrile illnesses subside after antibiotic therapy is discontinued. Perhaps the Arndt-Schulz law regarding poisons in general is applicable to antibiotics; it states that poisons in small doses act as stimulants. Experimentally, however, in vitro studies show

certain bacterial strains in broth cultures grow and multiply at a greater rate in the presence of an antibiotic than they do in the absence of the antibiotic. (14.)

Fatalities and Reactions

From December 1946 until early 1951 there were 107 drug fatalities reported in the literature—deaths not from poisonings of the accidental or suicidal type, but those occurring after the use of regularly advised or prescribed drugs. Among the parenteral drugs the antibiotics caused the largest number of deaths: 11 fatalities due to penicillin and 5 due to streptomycin. Penicillin deaths were due to exfoliative dermatitis, Jarisch-Herxheimer reactions and anaphylaxis. Streptomycin caused fatal toxic encephalopathy and severe dermatitis with stomatitis. The neurotropic effects of streptomycin occur more commonly in patients with hepatic or renal insufficiency. (15.)

The more common toxic and allergic reactions to antibiotics are well known, but some are severe and fatal. Prolonged sensitivity reactions to penicillin have resulted in pericarditis, active pancarditis, and, in at least one case, acute myocardial infarction. (16.) Fatal anaphylactic reactions to antibiotics are being reported more frequently and may result from parenteral use, aerosol inhalation, intranasal injection, or oral administration. (17.) In the treatment trials testing the suppression of tumor growth by antibiotics rather large doses were employed and toxic reactions were great. In 8 of 10 terramycin treated patients rapidly progressive azotemia resulted in death and in 2 of 3 penicillin treated patients death occurred due to complete renal failure. (18.)

The wholesale use of antibiotics in the routine treatment of undiagnosed acute abdominal conditions is to be condemned generally inasmuch as such may reduce fever, decrease the leucocyte count, and bring about a reduction in the number and severity of diagnostic abdominal symptoms and signs. (19.) Antibiotics may mask the clinical picture more than the administration of an opiate. In jaundice due to hepatitis the administration of an antibiotic may cause a false negative urine urobilinogen test and lead the clinician astray in assuming the jaundice to be obstructive and a surgical problem.

There is considerable question whether local oral treatment with lozenges and

troches is to be recommended for any purpose because reactions are multiple and there is great danger of sensitization, both local and general, to the point that even parenteral therapy is impossible or ineffectual. There is also evidence that sensitization so induced may produce generalized vascular disease such as lupus erythematosus and microarteritis disseminata. Ointments and oily suspensions containing antibiotics are to be avoided in the absence of clear cut indications because the highest rate and severest form of local and systemic sensitization results from their use.

There is no field of medicine that has not benefitted materially by proper application of antibiotic therapy, but the use of the several antibiotics has created new and different clinical entities and problems. The careless and wanton use of these agents has increased the incidence of these entities and problems unnecessarily. Before any of these valuable drugs are used, the indications should be positive and where possible the bacterial agent should be identified and the range of its antibiotic sensitivity accurately established.

REFERENCES

1. Klimek, J. W., C. J. Cavillito and J. H. Bailey. Induced resistance of *Staphylococcus aureus* to various antibiotics. *J. Bact.* 55:139-145. Feb., 1948.
2. Needham, Gerald M. and Donald R. Nichols. Recent

changes in sensitivity of micrococcus pyogenes to various antibiotic agents. *J. Lab. & Clin. Med.* 41:150-156. Jan., 1953.

3. Long, Perrin H. Bacterial resistance as a factor in antibiotic therapy. *Bull. New York Acad. Med.* 28:809-816. Dec., 1952.

4. Harter, J. H. Personal communication.

5. Hunter, Thos. H. Bacterial myocarditis. *Mod. Concepts Cardiovas. Dis.* 22:172-173. April, 1953.

6. Editorial: Hazards of antibiotic feed supplements. *J.A.M.A.* 148:376. Feb. 2, 1952.

7. Editorial: Cross resistance to antibiotics. *J.A.M.A.* 148:470-471. Feb. 9, 1952.

8. Jawetz, E., J. B. Gunnison and R. S. Speck. Antibiotic synergism and antagonism. *New England J. Med.* 245:966-968. Dec. 20, 1951.

9. Lepper, Mark H. and Harry F. Dowling. Treatment of pneumococcal meningitis with penicillin plus aureomycin. *Arch. Int. Med.* 88:489-494. Oct., 1951.

10. Laboratory aids to medical practice. Fatal enterotoxic reactions caused by antibiotic therapy. *Minn. Med.* 36:63-64. Jan., 1953.

11. Dearing, William H. and Fordyce R. Heilman. Micrococcal (staphylococcal) enteritis as a complication of antibiotic therapy: its response to erythromycin. *Proc. Staff Meet., Mayo Clin.* 28:121-134. Mar. 11, 1953.

12. Woods, J. W., I. H. Manring, Jr., and C. N. Fatterson. Monilial infections complicating therapeutic use of antibiotics. *J.A.M.A.* 145:207-211. Jan. 27, 1951.

13. Rhodes, Paul S. Hazards of antibiotic therapy. *Arch. Int. Med.* 90:731-733. Dec., 1952.

14. Duff, G. Lyman, E. G. D. Murray and Frances H. Prissick. Antibiotic resistant staphylococci and related infections. *Am. J. Med. Sc.* 225:299-319. Mar., 1953.

15. Flaxman, Nathan. Drug fatalities. *J.A.M.A.* 147:377-379. Sept. 29, 1951.

16. Pfister, Charles W. and Samuel G. Plice. Acute myocardial infarction during prolonged allergic reaction to penicillin. *Am. Heart J.* 40:945-947. Dec., 1950.

17. Feinberg, S.M., A. R. Feinberg and C. F. Moran. Penicillin anaphylaxis, nonfatal and fatal reactions. *J.A.M.A.* 152:114-119. May 9, 1953.

18. Bateman, Jeanne C., J. Roland Barberis, Paul Grice, Calvin T. Klopp, Howard Pierpont. Fatal complications of intensive antibiotic therapy in patients with neoplastic disease. *Arch. Int. Med.* 90:763-773. Dec., 1952.

19. Cole, Frank Richard. Masking of acute abdominal conditions with antibiotics. *Am. J. Surg.* 83:189-191. Feb., 1952.

Radioactive Iodine in the Diagnosis and Treatment of Thyroid Disease

HAROLD C. MORRIS M.S., M.D.

Louisville

The use of the radioactive iodine tracer study as a diagnostic aid in the functional diagnosis of thyroid disease has proven itself to be an aid superior to the basal metabolic rate, serum cholesterol, and the protein bound iodine determination (1). The deficiencies of the basal metabolic rate with its wide range of variability are acknowledged. This is contributed to by the inability to obtain absolute basal conditions at the time of the determination and false high readings in the anxious patient.

The accepted range of minus 10% to plus 15% does not allow for the possibility of a plus 15% determination representing hypermetabolism in the patient whose

normal may be minus 10%, nor does the reverse situation with normal for the individual being at the upper limits allow for similar error. Experience has also shown that reliable correlation between total serum cholesterol values and thyroid function very often does not exist. The protein bound iodine determination is probably less fallible but leaves much to be desired. The radioactive iodine tracer study, although still more reliable than the above mentioned, does have its limitations which will be elucidated

Principles

The principles of the tracer study are based upon a fortunate set of physiologic

circumstances relative to the metabolism of iodine. When iodine, I_{127} or I_{131} enters the body, either by ingestion, absorption, or a parenteral route, it passes into the body fluids as inorganic iodine. From the body fluids the iodine is picked up by the thyroid gland and converted to organic iodine which in turn is discharged into the blood as protein bound iodine. The protein bound iodine is deposited in the tissues as organic iodine and is eventually released again to the body fluids. The only mode of excretion is by way of the kidneys and the major portion of any dose of iodine not picked up by the thyroid gland may be recovered in the urine. Therefore, the amount of iodine picked up by the thyroid and the amount excreted into the urine from any one dose in a fixed period of time is determined by the activity of the thyroid gland and renal and cardiac function.

In the conduction of a radioactive iodine tracer study, a dose of one to two microcuries is administered orally after having determined the radioactivity of the dose outside the body. This dose is selected by some investigators (2) because it represents about one hundredth of the usual dose used and will allow repeated studies. Radioactivity over the thyroid gland and in the urine is determined at six and twenty-four hour intervals and is compared with the radioactivity of the dose outside of the body to arrive at the important determination of the uptake of radioactive iodine by the thyroid gland. One investigator (3) advocates determination at three and six hour intervals to detect borderline cases of hyperthyroidism with normal total uptake but extremely rapid uptake.

Normal Values

The hyperfunctioning gland characteristically has a high uptake. The hypofunctioning gland, however, can not be depended upon in all cases to demonstrate a degree of low uptake that is indicative of hypothyroidism. Normal values of radioactive iodine uptake expressed in terms of percentage of the tracer dose taken up by the thyroid gland have been established. One investigator of reliability (4) has found that an average of 34.1% was retained in forty-eight hours in 99.17% of all patients taken as normal controls with a range of 12.2% to 56%. Another investigator (2) has found that at six hours 14.5% plus or minus 5.2% was re-

tained, with a range of 7.5% to 23%. At 24 hours 23.3% plus or minus 7.3% was retained with a range of 14.0% to 35%. The urinary excretion values at six hours were 34.7% plus or minus 10.2% excreted, with a range of 18% to 44%. At twenty-four hours 62.7% plus or minus 7.9% was excreted, with a range of 40% to 72%. Unfortunately the tracer study is unsuccessful in separating the euthyroid patient from the hyperthyroid patient in borderline cases (1). The need is still at hand for a test to determine iodine demand by the thyroid or some other indicator of function which is independent of extraneous factors such as the renal mechanism.

Sources of Error

The validity and dependability of any diagnostic test is determined for the most part by the possible sources of error. Unless these sources are carefully considered and eliminated or minimized prior to conduction of the tracer study, the study becomes of little or no value. The prior ingestion, absorption or injection of iodine or organic or inorganic iodine containing compounds before the tracer study loads the thyroid gland. Unless an adequate waiting period is allowed before the tracer study an erroneous low uptake will occur. For example, days are required in waiting period after an intravenous pyelogram; months are often required after a cholecystogram; and according to present experiences, years may be required after a bronchogram using an iodized oil (5). However, if in spite of prior iodine entry into the body a high uptake occurs, this may be accepted as a valid study indicative of a hyperfunctioning gland. The ingestion of dessicated thyroid gland or analogous preparations suppresses the activity of the thyroid gland and eight weeks should elapse from cessation of thyroid therapy to obtain a valid tracer study since an erroneously low uptake would occur. Thiouracil drugs block the uptake of radioactive iodine while they are being given but when omitted a temporary increased uptake will occur; a so-called rebound uptake. If thiouracil drug therapy has existed for a few days prior to the tracer study, a few days abstinence should exist before the tracer study. Similarly, if thiouracil therapy has existed for months, a few months abstinence should exist before the study. Thiocyanates may also interfere with obtaining a valid tracer study.

As would be expected renal disease with associated impairment of renal function and congestive failure interfere with the renal excretion of radioactive iodine and spuriously high retention of radioactive iodine may occur.

Cortisone and adrenocorticotrophic hormone depress the uptake of radioactive iodine and an abstinence period is required before the tracer study.

Uses

Unquestionably the most important and valuable use of the tracer study is in the diagnosis of hyperthyroidism to definitely establish Graves' disease. As the result of recent work with the tracer study, other extremely valuable uses have been established. Thyrotoxicosis resulting from self administration of desiccated thyroid gland or thyroid hormone, termed thyrotoxicosis factitia, can be detected by a near zero uptake and near one hundred per cent excretion of the tracer dose of I_{131} (5). One can see that this is so by recalling that suppression of the thyroid gland occurs following thyroid therapy. The entity Struma ovarii may be detected by a high degree of radioactivity over the pelvis following a tracer dose of I_{131} . However, the possible retention of urine in the bladder resulting in a high degree of radioactivity in this area must be excluded to avoid a false impression.

Experience with the test has shown that a low uptake in nodular goitre does not exclude the diagnosis of a hyperfunctioning nodule nor does high uptake confirm the diagnosis of hyperfunctioning nodule. The discrepancy of differential uptake and likewise differential function of nodal and extranodal thyroid tissue has resulted in the development of several extremely helpful variants of the tracer study. A frontal profile of the thyroid gland obtained after the administration of 100 to 250 microcuries of I_{131} and subsequent exposure of photographic film to the resultant radioactivity emitted from the gland in vivo is such a variant and is termed a scintigram (2). Such an impression of the location of relative amounts of radioactivity in the gland will demonstrate the relative function in individual nodules of adequate size and in extranodal thyroid tissue. The value of such a determination is of considerable aid to the surgeon in making his decision whether to do a nodal excision or a subtotal resection of the gland. In the pres-

ence of a low functioning nodule the possibility of the existence of neoplasia in that nodule is increased thereby aiding the surgeon in his decision to either resect a nodule or allow it to remain under observation. The scintigram is also employed to determine the approximate size of the gland prior to radioactive iodine therapy; or to establish or deny the possible existence of a substernal goitre; or to aid in the diagnosis of recurrent hyperthyroidism following surgery; or in carcinoma of the thyroid gland before and after surgery to detect metastases or remaining thyroid tissue.

A more economical device, the directional counter, has an additional advantage over the scintigram of being amenable to use in the operating room. (5). The directional counter may be passed over the thyroid area at the time of surgery to detect remaining thyroid tissue or metastases following radical thyroidectomy for carcinoma of the thyroid before closing the operative site.

There are unfortunately some sources of error with both the scintigram and the directional counter. External necrosis of a centrally hyperfunctioning nodule will interfere. Also a nodule of less than two centimeters in diameter or a nodule superimposed by a large amount of extranodal thyroid tissue will provide a false impression.

Another variant of the tracer study and used in conjunction with the scintigram and directional counter is the radioautograph (5). The radioautograph is a photographic impression of thyroid tissue obtained in vitro by exposure of photographic film to microscopic sections of resected gland. Areas of increased radioactivity and therefore areas of increased function are represented by black deposits on the film. This is, of course, of real value to the surgeon to confirm his impression obtained in vivo with the scintigram or the directional counter.

Treatment of Hyperthyroidism

The use of radioactive iodine in the treatment of hyperthyroidism is presently restricted to those patients with toxic goitre who require surgery but who constitute considerable surgical risk such as cardiac or other systemic risk or technical risk such as distorted anatomy from previous surgery, laryngeal paralysis, or prior damage to parathyroid tissue (5). The major factors leading to this conclu-

sion are the necessity for repetitive doses and the threat of possible future carcinogenesis which is as yet unexplored (6). Dosage is quite definitely a primary problem, although one group of investigators (7) have established a dosage schedule which is as follows:

150 microcuries per gram of thyroid tissue in patients under 40 years of age with diffuse enlargement; 250 microcuries per gram of thyroid tissue for patients over 40 years of age with diffuse enlargement; 300 to 350 microcuries in patients with nodular glands. Repetition of the dose at six to eight week intervals based upon the clinical response is required. The possibility of development of hypothyroidism is quite real but the incidence is reported as 13.8% of variable degrees in a series of 384 patients (7). Other toxic effects such as lymphopenia, leucopenia are known to exist.

Treatment of Carcinoma of the Thyroid

The use of radioactive iodine in the treatment of carcinoma of the thyroid remains secondary to radical surgical excision (5). General acceptance of this is based upon the facts that large doses of radioactive iodine are required as well as repetition of the dose and valuable time is lost allowing for progression of the primary lesion and, or, the possible development of metastases. However, radioactive iodine is given preoperatively and postoperatively to facilitate completeness of the excision by use of the directional counter at the time of surgery and also for the radiation of metastases during the convalescence period. The effectiveness of radioactive iodine in the treatment of thyroid metastases is still being investigated, since it has been determined that in the absence of normal thyroid tissue with its greater avidity for radioactive iodine, carcinomatous thyroid tissue has a greater opportunity to pick up I_{131} . A primary stimulus to actively investigate the therapy of thyroid metastases is based upon the fact that with the removal of the normal source of thyroid hormone the burden of supply is placed upon malignant tissue which develops the capacity to fulfill this demand.

Thiouracil drugs are given preoperatively to encourage the large rebound up-

take of radioactive iodine that occurs with their discontinuance and simultaneous administration of radioactive iodine. There is, however, considerable variance in the therapeutic effectiveness of radioactive iodine, depending upon the type of thyroid carcinoma (5). Solid cellular carcinoma of the thyroid has very low function and consequently poor uptake of radioactive iodine with resultant low degree of effectiveness. Papillary adenocarcinoma of the thyroid likewise has low function, poor uptake and poor response to radioactive iodine therapy. However, follicular adenocarcinoma which is forming colloid fortunately has a good uptake, consequently a good response to radioactive iodine and its metastases readily take up radioactive iodine. Some of the toxic manifestations of this mode of therapy have been mentioned, namely, lymphopenia and leucopenia. Functional impairment of the ovaries has been reported in those instances with pelvic metastases.

Summary

A relatively brief account of some of the principles, limitations, sources of error, uses and toxic manifestations of radioactive iodine as employed in the diagnosis and treatment of diseases of the thyroid gland has been presented. In order that radioactive iodine may be used successfully on a practical level rather than an experimental level, familiarity with the basic concepts is essential. The lasting and dependable nature of the tracer study is undoubted but the limitations of radioactive iodine in therapy is disappointing although much more investigation continues.

BIBLIOGRAPHY

1. Roswit, Bernard, Rosenkrantz, J. A., Sorrentino, J., Yalow, R. and Berlin, I.: Evaluation of Diagnostic Methods in Diseases of Thyroid Function with Particular Reference to Radioiodine Tracer Tests. *Am. Journ. Med. Sciences*, 223:229, 1952.
2. Bauer, Franz K., Goodwin, William E., Libby, Raymond L.: Radioiodine in the Diagnosis of Thyroid Disorders. *Med. Clin. of North Am.*, July, 1952, page 981.
3. Bauer, Franz K.: I_{131} Uptake in Treated Hyperthyroidism. *Am. Jour. Medical Sciences* 223:495, 1952.
4. Skanse, B.: Radioactive Iodine in the Diagnosis of Thyroid Diseases: Thesis 1949 Upsala Sweden Almquist and Wiksells, Baktryckeri, A. B., *Acta Med. Scand. Suppl.* 1949, 235:1-186.
5. Dobyns, Brown M.: Radioactive Iodine as an Adjunct to the Surgical Management of Diseases of the Thyroid. *Surg. Gyn. and Obstet.* 93:415, 1951.
6. Cope, Oliver: Diseases of the Thyroid Gland (Part I concluded). *New Eng. Journ. of Med.* 246:408, 1952.
7. Clark, D. E., Rule, J. H., Trippel, O. H., Cofrin, D. M. Five Year Experience with Radioactive Iodine in the Treatment of Hyperthyroidism. *Journ. Am. Med. Assoc.* 150:1269, 1952.

Wound Healing and the Antibiotics

EDWARD B. MERSCH, M.D.

Covington

In the past few years, the subject of wound healing has been relegated to the background, and at the same time constantly placed before us. Not too long ago, we, as surgeons, thought of wound healing as one of the primary things to be attained by proper technique. Now we are forgetting some of the details. Too many times, we completely ignore it. We have been led to believe, that any wound will heal if the "right" antibiotic is used. This is true in a sense, but it is only a part of the problem. We still have infections, and we still have delayed, or non-union of wounds; even when we use the various "miracle drugs" singly, or in combinations. Too many times, a wound is treated by some surgical measures, and then treated medically with 'shots,' pills or capsules, until finally an awakening happens—the wound is infected—it did not heal.

How many times have you said to yourself, or have you heard, "I can't understand why this wound is infected, the patient received plenty of penicillin, aureomycin," etc.; or how many times have you heard the remark at the autopsy table, "I can't understand why this patient died, he had a barrel of antibiotics." But it does happen. Wounds still become infected and patients still die from infections.

It is an established fact that the antibiotics are a great help in the prevention and treatment of infection, but they alone are not enough.

A wound is a disruption of normal tissue. It may be caused accidentally by trauma or deliberately induced by surgery. It may be 'clean' or 'dirty.' Its edge may be sharp or contused. It may be associated with minimal bleeding or a copious flow of blood. It may be simple, with no deep structures involved, or it may be compound, involving such structures as muscle, nerves, tendons, bones, viscera, etc.

The immediate consequences of a wound are local pain and bleeding, and in ex-

tensive deep wounds—general shock, collapse, infections and even death¹.

Wound Healing

The factors influencing the healing of wounds may be divided into two general groups; first those affected by the general condition of the patient, and second, those concerned with the local condition of the wound. An understanding of these factors is essential for the successful treatment of wounds.

It is a recognized fact, that patients in poor physical condition have more disrupted wounds. The patient's general nutrition, anemia, prolonged infection, generalized debilitating disease, such as nephritis, diabetes, cancer, and those conditions producing an altered body chemistry, may be factors in the delayed healing of wounds. The scope of this paper limits the discussion of these general conditions to the above statements.

The local factors in wounds and their relation to the antibiotics are to be considered.

The various processes which lead to wound healing must be understood, since a rational treatment of wounds ought to further the healing process, as well as to prevent additional damage and infection. Wounds heal by primary or secondary intention. A wound heals primarily only if its edges are healthy and remain in close approximation to each other. If, however, the edges are devitalized or separated, or become so, the resulting defect has to be bridged and filled by granulation tissue before it finally results in a scar².

The physiological and morphological changes in wound healing will not be considered here, except to note that there is no difference qualitatively but only quantitatively. In primary wound healing only a small cleft has to be bridged, while in secondary healing a wide defect must be filled³.

Traumatic wounds are emergencies, and they are contaminated. Organisms are always carried into traumatic wounds, and according to Friedrich, remain along the wound tract, and on the necrotic tissue for about six hours. This is the stage

Read before the Annual Meeting of the Kentucky Surgical Society at French Lick, Indiana, May 16, 1953.

of contamination. Later they accustom themselves to the surroundings, multiply, and begin to invade the deeper tissues, and this, then becomes the stage of infection. Definitive treatment should be carried out in the first six hours. However, with the use of the antibiotics this period may perhaps be increased, but it is not recommended. Too often we see a wound that was in the 'infected period' closed, and the patient penicillinized, but the wound followed the usual rule and became infected.

Infected wounds must be opened and the pus evacuated. The antibiotics do not relieve the surgeon of the responsibility for draining pus. If there is a delay in this, local necrosis may develop without being suspected until it is too late.

Treatment of Wounds

The treatment of wounds is divided into the emergency treatment and the final or definitive treatment.

It is important to remember that not just a wound requires treatment, but a patient with one or more wounds. The primary purpose of treatment is to save life by controlling hemorrhage, maintaining adequate respiration, preventing or controlling shock, relieving pain and anxiety, and controlling infection. The secondary purpose is to save and restore the injured part to normal function and appearance as rapidly and effectively as possible¹.

The local factors influencing wound healing are, the type of wound, the type of incision, operative trauma, infection, hemostasis, foreign bodies, disturbed blood supply, suture material, tension of the closed wound, inaccurate approximation, and devitalized tissue.

Fresh traumatic wounds must be carefully debrided or excised. This must be thorough. All devitalized and dirty tissue, foreign bodies, etc., must be removed but care should be taken to preserve the normal structure. The wound should be well irrigated and a second set of instruments used to further debride the wound during and after irrigation. Another clean set of instruments is used for repairing the wound.

The type of incision may definitely influence the rate of healing. The rough handling of tissue, careless clamping for hemostasis or traction, or tearing of struc-

ture, unnecessarily devitalizes tissue. Guard against unnecessary operative trauma.

Hemostasis is essential to wound healing. A hematoma within a wound prevents coaptation of the wound edge, predisposes to infection and prolongs cicatrization.

Foreign bodies must be removed. If they are not they must be absorbed or encysted by the body. They delay healing or form foci for infection. Suture material is a foreign body. It must be absorbed, extruded or encysted. Use only a minimum amount, with a minimum amount of tissue included in the suture or ligatures.

Tension on the tissues is of prime importance. Use the sutures to approximate the tissues, not to strangulate them. A suture too tight cuts off the blood supply and causes necrosis, which in turn weakens the wound, predisposes to infection, and compels the body to first remove the dead material before wound repair can begin.

The various layers should be accurately approximated, especially when closing the peritoneum, fascia or skin. There should be no protrusion of fat, muscle, or other tissue between the sutures.

No wound, traumatic or surgical, is absolutely free of bacteria, and must be considered contaminated. Infection in clean surgical wounds should be at a minimum, with the utilization of the proper surgical technique. Traumatic wounds, because of their method of production, associated with the marked possibility of massive contamination with various mixed organisms, should be expected to yield a much higher percentage of infected wounds.

The various chemotherapeutics and the antibiotics properly used, can and do show a marked effect on the prevention and control of infections. If improperly used, their effect may be limited, incomplete, or absent. The old problems of infection are still present, and with the introduction of the various antibiotic agents, new problems constantly arise.

Routine Use of Antibiotics

With the routine administration of the antibiotics as a prophylactic measure, the surgeon is likely to be lulled to a false sense of security. He does not study the wounds as he should. He is contented with an axiom of "cleaning, closing, dress-

ing, antibioticizing, and forgetting the wound." He is surprised when the "dawn of awakening" reveals an infected wound.

The prophylactic use of antibiotics does cut down the number of infected wounds. At other times it limits the degree or amount of infection. We repeatedly see wounds that first show signs of infection one to several weeks after closure. Many of them are superficial wound infections in the subcutaneous space. Often they are about ligatures and sutures. These are usually of no serious consequence. However, some of the deeper structures, such as the bones, may show extensive changes due to infection, with little clinical evidence of such a severe reaction taking place. These patients are apt to run a low grade fever, and do have pain of varying degree.

The early diagnosis of infection is essential, while the bacterial infection is still in the diffuse or cellulitic stage. It is here that the antibiotic is most apt to produce a prompt and rapid control of the invasiveness with complete and spontaneous resolution, or a minimal amount of tissue destruction. If the diagnosis is delayed, necrosis, abscess formation and systemic invasion develops, with perhaps the establishment of metastatic abscesses. Failure to recognize the existence of these metastatic complications usually produces incomplete therapeutic response and prolonged morbidity or death. Failure of the elevated temperature and other signs of infection to recede within 72 hours of the start of the antibiotic agent, usually implies abscess formation or complicating metastatic infection⁶, or the insensitivity of the organism for that particular antibiotic.

Selection of Antibiotic

The selection of the antibiotic agent for a particular case should be more than just a blind procedure. A smear of the exudate, stained by the gram method, will probably be useful in selecting one or more effective agents. When no exudate is obtainable, the choice of the antibiotic is then presumptive, until the nature of the organism is determined⁷ or the response satisfactory.

It has been repeatedly shown that various strains of bacteria, within the same group or species, show a marked difference in their susceptibility and resistance to penicillin, aureomycin, chloromycetin and terramycin⁸.

In serious infections, the selection of the agent should be determined by sensitivity tests whenever possible.

Mixed infections likewise present additional problems and often require two or more antibacterial agents for treatment.

In severe or prolonged infections, the bacteria often become resistant to the various chemotherapeutic agents.

Altmeier has shown out of a total of 216 susceptible strains of bacteria sensitive to chloromycetin, 14 or 6.6 per cent developed resistance, while 8 out of 88 or 9.9 per cent, strains acquired resistance to aureomycin. In the case of penicillin, 12 strains out of a total of 82, or 14.6 per cent, acquired resistance during therapy⁹. Staphylococci have become especially penicillin resistant, as is shown by the following figures: in 1946, 14.1% were resistant, in 1947, 38% were, and in 1948, 59% were resistant¹⁰.

Mixed infections may result from gross contamination, the development of resistance to the antibiotic, the use of an improper antibiotic, or the alteration of the bacterial flora during antibiotic therapy. This alteration may be manifested in the area of infection by the inhibition of susceptible organisms and the accentuated growth of non-sensitive organisms, with a resulting secondary new infection¹¹. The combination of staphylococcus aureus and streptococcus hemolyticus offers a synergistic problem. Occasionally a relatively nonvirulent organism becomes invasive and establishes metastatic lesions, the proteus bacillus being an example.

Antibiotic antagonism and synergism is a problem. In severe infections the trend is to give more than one antibiotic, hoping that if one drug fails, the other will be effective. But Jawetz¹² has shown an antagonism between chloromycetin and penicillin. It has also been proven that aureomycin and terramycin interfered with the action of penicillin in streptococcal infections¹³. Penicillin should therefore not be given with aureomycin, chloromycetin or terramycin. On the other hand, there is a synergism between penicillin and streptomycin, and also some synergistic action between bacitracin and penicillin.

Prolonged antibiotic treatment may also lead to a development of a mycotic infection. On several occasions we have seen overwhelming monilial infections develop, with resulting death.

Untoward Reactions

Untoward reactions develop with the use of the antibiotics. These toxic reactions and idiosyncrasies present new and additional problems in the control of surgical infections. Pruritus, stomatitis, allergic skin reactions, and the Herxheimer type of febrile reaction have been noted with all the antibiotic drugs. Aplastic anemia has developed after the use of some of these. Gastrointestinal symptoms are likely to develop with aureomycin and terramycin, and are quite discomfiting to the patient. Bacitracin, neomycin and polymyxin produce a definite threat of nephrotoxicity. Deaths attributed to penicillin have usually been due to exfoliative dermatitis, Jarisch-Herxheimer reactions, and anaphylaxis¹⁴. Nonthrombocytopenic purpura and nephritis with the nephrotic syndrome as manifestations of penicillin sensitivity have been reported¹⁵. The streptomycin deaths were due to toxic encephalopathy and dermatitis with stomatitis. Asthma, angioneurotic edema, hypotension and shock-like states are attributed to the antibiotics^{16,17}. Flaxman¹¹ states that the antibiotics have caused the largest number of deaths among those due to parenteral medications. The more these drugs are used, the longer the list of untoward reactions will become.

Bernard and Gillman¹⁸ have presented cases supporting a possible complication of streptomycetes derived antibiotics. Any of these antibiotics which greatly curtail the intestinal coliaerogenes flora, or reverse this flora, will reduplicate the effects of either cortisone or

ACTH. Among the effects of cortisone or ACTH is the tendency to delay wound healing, by abrogation of the tissues adaptative mechanism, in a certain small percentage of surgical patients.

Summary

In summary, the problem of wound healing is ever present. Surgical infections, although decreased with the use of the antibiotics, still occur. The general surgical technique cannot be discarded. The assumption of many surgeons, that there is no longer a problem in controlling infection with the use of antibiotics, is false, misleading and should be decried. The problem of infection and wound healing is becoming more complex with the addition of each new antibiotic. The abuse in the use of these drugs will tend to decrease the clinical effects of them, and eventually relegate them to disuse.

REFERENCES

- (1) Orr, Thomas G.—Operations of General Surgery.
- (2) (3) May, Hais—Reconstructive and Reparative Surgery.
- (4) Altemeier, W. A.—Modern Medicine (Sept. 1) 1952.
- (5) (6) (7) (8) (9) Altemeier, W. A.—Pennsylvania Med. Jr. (Dec.) 1950, Vol. 53, pages 1257-1261.
- (10) Editorial J.A.M.A. 145:1268 (April 21), 1951.
- (11) Dukes, C. D.—American Surgeon 18:778 (August) 1952.
- (12) Jawetz, E. et al A.M.A. Arch. Int. Med. 87:349 (March) 1951.
- (13) Speck, R. S., Jawetz, E. and Gunnison, J. B. Arch. Int. Med. 88:168 (Aug.) 1951.
- (14) Flaxman, N. J.A.M.A. 147:377 (Sept. 29) 1951.
- (15) Spring, M. J.A.M.A. 147:1139 (Nov. 17) 1951.
- (16) Bedford, P. D. British M. J. 1:1428 (June 23) 1951.
- (17) Gittell, G. J.A.M.A. 147:1141 (Nov. 17) 1951.
- (18) Bernard, R. D. and Gillman, J. A. C. Urologic and Cutaneous Review 56:1 (Jan.) 1952.

Certain Fundamentals of Peripheral Vascular Disease

JOHN B. FLOYD, JR., M.D.

Lexington

Fundamental knowledge in the field of peripheral vascular disease covers a broad area and touches upon nearly all aspects of medicine as practiced today. There are those changes due to failure of artery volume transport or ischemia. There are those changes noted with intra-vascular clotting, phlebothrombosis and thrombophlebitis. There are ischemic manifestations due to varicose veins, arterio-venous fistulas, and intrinsic diseases such as syphilis and polycythemia vera.

The fundamentals of peripheral circulatory changes influence severely our thoughts when pathological deviations begin to cripple a patient. The prognosis and the outline of treatment depends to a great extent on our use of those fundamentals. Regardless of the exact disease causing the circulatory variant from normal, the same basic factors determine the degree of patient and physician satisfaction and these are relief of symptoms or a fairly accurate prognosis of the disease course.

The prevention or alleviation of vasospasm is a major factor in consideration of most peripheral vascular diseases. It is after the relief of vasospasm that the most dramatic changes are noted. Vasospasm may be considered a term to describe an abnormal constriction of a vessel, while vasoconstriction may be thought of as a normal physiological response to a physiological stimulus.

Causes of Vasoconstriction

The following stimuli normally cause peripheral vasoconstriction. The first factor is an emotional stress of worry, fear, or anger. The second factor is exposure to cold and chilling. The use of tobacco in any form is a third, major, and the greatest factor in producing vasoconstriction. Pain, infection and trauma to a limb result in vasoconstriction which may even shade into abnormal vasospasm. When adverse clinical effects on peripheral circulation are noted, the first step in treatment is to remove the vasoconstricting influences.

The production of vaso-dilatation re-

sulting in increased warmth, dryness, and exercise tolerance is the desired result. When disease is advanced enough to produce soft tissue necrosis or gangrene, one must check the beneficial effects of vasodilating steps. The results generally depend upon the degree vasospasm affects the symptoms. With organic obliteration of arterial lumina, development of collateral circulation is not hopeful, and some degree of amputation is anticipated.

Symptomatology

The most frequent complaints registered are those of pain and discomfort in the extremity. The patient should be encouraged to enlarge upon their symptoms in order that an analysis of these symptoms be carried out.

It is important to know what initiates the pain and its location. Does exercise or exertion bring on the pain, and is it relieved by rest, or does it appear at night, or is it present at all times? Does coughing or twisting increase the pain? The radiation of the pain down the back of the leg as in sciatica or into the fingers as in a ruptured cervical vertebral disc helps to clarify the diagnosis. Knowledge of whether the tenderness follows the course of the femoral or axillary veins and is continuous as in thrombophlebitis, or is limited to joints as in arthritis and worsens with use or lessens with rest is of great value to the physician.

Thus, one sees that it is necessary to approach the patient's history and physical examination from a somewhat different point of view than that of the routine history and examination, which precedes the special examination. The entire vascular system must be kept in mind. The mode of initiation should be determined, whether related to accident, surgery, frostbite, or thrombophlebitis. Observation of color changes in the fingers or feet may give a clue. If the patient doesn't smoke, thrombo-angiitis obliterans, for practical purposes, can be ruled out. Raynaud's syndrome in men is likely due to central nervous system syphilis.

Beyond various aspects of pain and discomfort the patient may note coldness of one extremity as compared with the other.

Ischemic limbs tend to assume the surrounding temperature. Loss of normal vasomotor tone disturbs the normal heat regulation of the extremities. Reflex vasoconstriction prevents loss of body heat, and reflex vasodilatation is a method of heat loss. In an average room 70° F. a normal limb may have a skin temperature of about 90° F., while a limb with poor circulation will have a skin temperature more nearly approaching that of the room. This is usually found with organic obliteration, but may be due to functional vasospasm. Paresthesias and weaknesses are noted, as are complaints of general fatigue in the limb.

Physical Findings

The classical color changes of pallor on elevation and rubor on dependency appear fairly early in a limb with arterial deficits. Most commonly both are related. Rarely will one change be noted without the other. Redness may be vivid in cold weather in a limb which approaches a temperature of 50° F., the point at which the blood fails to give up its oxygen. The color depends on the blood in the subpapillary plexus and small skin vessels.

Nutritional changes of the parts such as brittle, curved, ridged, poorly growing nails, or atrophied skin may often be early signs of poor circulation. Fungus infections are commonly either present or thought to be present.

Gangrene varies from soft tissue ulcers to frank mummification of an extremity. In the arteriosclerotic limb with a deficient arterial load the necrosis is usually the "dry" type. In the more vasospastic limb with a thrombophlebitis the necrosis may be the "moist" type due to edema and impaired venous return. Gangrene frequently starts as a small dark plaque, usually on the digits or dorsum in arteriosclerosis, or of the skin of the lower half of the leg in chronic milkleg or thrombophlebitis.

Edema as a result of peripheral vascular disease indicates thrombophlebitis and vasospasm. It is seldom the result of purely arterial obliteration. Systemic diseases which cause pedal edema are cirrhosis, cardiac decompensation and anemia.

Classification

The majority of peripheral vascular lesions we see today are those secondary

to arteriosclerosis obliterans. This is a degenerative process beginning after forty years of age. It is thought to be related directly to abnormal cholesterol metabolism. The role of vasospasm is not so significant. Males are afflicted more frequently and the onset is gradual. The lower limbs are usually the site of the lesion. Intermittent claudication is usually the first symptom, while color changes and intrinsic foot muscle atrophy are the first signs. At this stage sympathectomy may be followed by relief of these signs and symptoms.

As arteriosclerosis obliterans progresses, amputation of gangrenous digits and limbs should be conservative in approach, and quick in the face of unlocalized infection and progressive gangrene. The coronary arteries are generally involved in the arterio-sclerotic process, and the patients are not uniformly good operative risks.

Soft tissue necrosis leads to further damage by secondary infection. Treatment involves bed rest with protection of the extremity from all trauma. While a cradle to keep heavy or tight bed clothes off the toes should be used, heat has absolutely no local use. A heat cradle can cause progression of a gangrenous process by raising local metabolic needs above the ability of the arterial stream to deliver oxygen. Antibiotics regularly will help to control cellulitis and to limit it. Moist, creviced interdigital spaces should be carefully and gently cleansed and exposed to the open air with cotton between the toes.

Buerger's Disease

The second group of diseases to be mentioned is Buerger's disease or thromboangiitis obliterans. This affects men almost entirely, beginning gradually in the twenties and thirties. It is not seen in a non-smoker. It is a segmental, obliterative, inflammatory disease of the extremity involving the artery, vein and nerve, characterized by periods of remission and progression. Visceral arteries may be involved, such as cerebral, coronary and mesenteric groups.

The etiological factor of tobacco continues to be the one greatest cause emphasized by all workers. Relapses usually follow resumption of use of tobacco. Complete abstinence from tobacco in early cases can cause a complete remis-

sion of symptoms, and when painful ulcers are present abstinence is followed by relief of symptoms. Cessation of tobacco is so important in Buerger's disease, that smoking of one or two cigarettes can provoke a painful relapse. It is such an important factor that major limb amputations are rare if the patient does not smoke. In the rare three to five per cent of cases requiring major amputations, one can count on the use of tobacco by the amputee. In fact, major surgery is seldom required in Buerger's disease at all if the patient does not smoke. While comfortable remissions are seen if tobacco is not used, most moderately advanced cases benefit from a regional sympathectomy. This is especially to be expected if intermittent claudication and evidence of vasospasm are present. Of course, better functional response can be expected if the patient shows evidence of good reflex vasodilatation or demonstrates this phase after a local regional sympathectic block. In this disease, reflex vasodilatation may be best tested by applying heat to the torso rather than to a more normal extremity. Regional sympathectomy will definitely enhance remission of the disease, but only if tobacco is avoided.

On examination the absence of a dorsalis pedis, posterior tibial, radial, or ulnar artery pulsation suggests the presence of Buerger's disease. On the other hand, these vessels are normal in pulse amplitude in those diseases of the arterioles such as Raynaud's disease, acrocyanosis, and erythromelalgia.

Further indications that Buerger's disease is present lie in the presence of edema and in the involvement of the digits. Migratory phlebitis is very common, superficial or deep, and may be the presenting sign.

The various pains accompanying the signs are of different types, occurring "at rest" and "after exercise." They can be due to ischemia of tissues, to inflammation of the vessels, or to cellulitis. They may be due to sudden vessel occlusion. In general, pains are more intense than those seen with more slowly progressing arteriosclerosis obliterans.

Many times ulcers of fingers and toes due to industrial injuries may fail to heal properly because of the underlying peripheral vascular disease. Treatment of these ulcers should be conservative and gentle. Most will heal with bed rest if the patients stop smoking. Irritant oint-

ments and dressings of all sorts are to be avoided, for most available today will prevent or slow epithelization of the ulcer. Plain vaseline or a cod liver oil dressing with a small amount of penicillin will generally suffice until comfortable healing takes place. Probably the only moist dressings of value are 1-2% acetic acid soaks for bacillus pyocyanus infections. Refrigeration, heat cradles, Paevex boots, and continuous hot moist dressings all tend to cause more damage than good.

Raynaud's Syndromes

The related syndromes of Raynaud's disease, scleroderma, livido reticularis, and acro-cyanosis, are mentioned only to complete the outline of the material we are covering. Exact or closely related etiologic factors are not known, and treatment is not specific.

The extreme sensitivity to cold is a common finding. The diagnosis of Raynaud's disease in the summer is clarified by the painful pallor of hands suddenly immersed in ice water, as compared with the cold slow dull ache finally developed in more normal hands. Wrist and ankle artery pulsations are normal, unless in severe spasm. Chronic frostbite is more of a peripheral vascular disease than it is a dermatologic disease. Thus, in these cold sensitive lesions, the first step in treatment is to keep the patient warm. The use of bed socks and wool lined slippers, the daily use of cushioning wool socks, and adequate outdoor clothing are points we must clarify with the patient.

Most of the individuals are unstable to some degree, and anxieties and emotional stresses should be avoided. Thus in acute episodes, such as with digital ulcers in Raynaud's disease, quicker relief may be obtained by sedation and by isolating the patient from members of the family who may arouse conflicts. General supportive care such as improved nutrition with supplemental vitamins, correction of blood volume deficits (i.e. cells, hemoglobin, proteins), and amelioration of hormone needs have great influence in quieting a hypersensitive individual and creating a sense of well being.

Peripheral Venous Disease Saphenous Insufficiency

The bulk of the previous discussion highlighted the arterial components of peripheral vascular disease. The peripheral veins themselves directly, or as a re-

sult of intravascular clotting initiate many crippling syndromes.

The stasis secondary to saphenous varicosities, with stasis dermatitis, stasis pigmentation, stasis ulcers, and edema is a familiar picture to all of us. Exercise increases tolerance for exercise by temporarily correcting the increased hypostatic venous pressure by pumping the venous blood out of the leg. Standing removes the pumping action of the muscles, increases venous hypostatic pressure and increases signs and symptoms of stasis.

Besides applying vaso-dilating principles, the treatment consists entirely of attempting to recreate the effect of saphenous valves. Compression by means of good elastic bandages or Unna boots decreases or prevents edema. Elimination of the useless superficial saphenous venous channels is a direct approach to correcting the venous stasis. Gentle stripping of the vein with due regard to cutting down upon and ligating tributaries of the greater saphenous and other means of preventing hematoma formation is the least traumatic and most effective means of controlling collateral incompetent feeder veins. Multiple ligation, retrograde injection of sclerosing agents, and endovenous coagulating procedures are more inefficient, and more traumatic, with a greater incidence of complications and recurrences, and have little to recommend them over stripping.

Clotting

Intra-vascular clotting complications encompass the greatest unsolved surgical problem today. Control of shock and control of infection are fairly well understood and applied. Prevention of and treatment of intravascular clotting presents many difficulties.

Much is known of the predisposing factor of increased blood coagulability developed as a protective mechanism following tissue trauma from operation, delivery, injury, malignancy or infection. Thus we try to decrease tissue trauma with sharp dissection, avoidance of mass ligation of tissue and of blunt dissection, and with gentle handling of tissues. We try to decrease blood viscosity with proper hydration.

Much is also known of the precipitating factor of venous stasis, and this awareness leads to steps such as wrapping limbs with elastic bandages to increase venous return through the femoral vein. Preven-

tion of abdominal distension post-operatively, deep breathing and leg exercises, early rising, and avoidance of popliteal space compression by pillow or flexion are further steps.

Phlebothrombosis and Thrombophlebitis

Phlebothrombosis is the dangerous condition one wants to avoid. The bland clot, present without inflammatory agglutination to the vein wall, creates a situation that is difficult to handle. It continues to be difficult to handle. It is not being adequately handled by Dicoumaral. It is not completely satisfactorily handled by proximal vein ligation and trapping. We want to prevent pulmonary emboli and we want to prevent propagation of the clot. Dicoumaral will not accomplish either step. There is no drug that will dissolve a clot already present, and there is no drug that will prevent a bland thrombus from embolizing. For about ten years now Dr. Alton Ochsner has pointed out that the ideal drug will be an anti-coagulant without hemorrhagic tendencies. He continues to point out that establishing an accurate diagnosis of phlebothrombosis is a major problem. After the diagnosis is made, immediate ligation of the superficial femoral vein distal to the saphenous and possibly distal to one or two profunda femoral veins should be done to trap the clot. He has been as quick as anyone to point out that fatal pulmonary emboli have occurred after bilateral superficial femoral vein ligation. However, the same incidence of fatal pulmonary emboli are seen with anti-coagulant (Dicoumaral) therapy. In addition Dicoumaral therapy is accompanied by a 10% bleeding complication, some fatal. Dr. Mims Gage advocates trapping of the clot by proximal vein ligation in continuity, followed as soon as possible by the use of depo-heparin for a period of time.

Thrombophlebitis, on the other hand, is more commonly recognized because of the more acute signs and symptoms of pains, coldness and edema. Pulmonary emboli occur rarely here, and then only in those patients put to bed and immobilized for long periods. The acute venous inflammatory thrombus is adherent to the wall, and initiates a reflex spasm of the artery. Treatment is directed toward correction of the vasospasm by vaso-dilating influences, especially by regional sympathetic nerve blocks with procaine, toward correction of the edema by compression bandages, and toward prevention of a bland proxi-

mal propagating red thrombus by mobilizing the patient early. This is the process most have in mind when intra-vascular clotting and pulmonary emboli are considered. Vein ligation has no place here except in a rare prolonged instance with repeated pulmonary emboli, for which a vena caval ligation may be required.

The Phlebitic Limb

The chronic phlebitic limb is a subject about which great discussion of treatment has revolved. This is typically a limb in which vasospastic impulses arise from a vein involved with a past inflammatory thrombosis, resulting in poor circulation and edema. The findings vary from those cases with minimal edema and cramps and coldness noted spasmodically, to those edematous, ulcerated limbs with marked subcutaneous scarring. Increased sympathetic tone with arteriolar spasm is the major symptom causing factor, leading to coldness, paresthesias, increased sweating and edema. The added factor of venous stasis of the deep femoral system secondary to destruction of the valves by the thrombophlebitis and recanalization increases the degree of edema. Treatment is thus properly based upon use of vasodilating steps to overcome the vasospasm, such as avoiding exposure to cold, avoiding emotional stresses, and avoiding tobacco. Lumbar sympathetic procaine anesthesia is helpful, and if symptoms recur with otherwise adequate steps, lumbar sympathectomy should probably be recommended.

The other phase of treatment is based upon replacing the effect of the destroyed valves by the use of compression bandages. Ambulant treatment is best followed at all stages, for putting the patient to bed may increase chances for further or recurring episodes of intra-vascular clotting. The later stasis ulcers usually heal

with control of vasospasm and with compression. Excision with grafting is not usually necessary.

Anti-coagulants may be valuable as an aid, but anti-coagulants have much to be desired as the primary source of treatment. A patient is more quickly and more safely rehabilitated by the steps described than by the prolonged bed rest and anti-coagulant therapy of Dicoumarol now advised by a good many physicians. The patient has to be taught these ideas of treatment as well as we know them in order that they may more intelligently and diligently carry out our compression measures and simple vasodilating methods.

It is not within the time allowed for us to cover the various syndromes classified among the peripheral vascular diseases, such as the various aneurysms, and the arterio venous fistulae, both acquired and congenital.

Summary

In summary, constant consideration of the fundamental step of increasing circulation by preventing or correcting abnormal vasoconstriction, and by controlling or preventing edema in those applicable situations will be followed by more satisfaction for both physician and patient.

Controlling of exposure to cold, emotional stresses, and tobacco are fundamental vaso-dilating effects.

Interruption of regional sympathetics by anesthesia or surgical ablation is a direct and valuable step when indicated. The local complications such as acute infection, fungous infections, ulcers and other soft tissue injuries must be treated directly and with avoidance of trauma, meaning with vaso-dilating steps and with bed rest.

Anti-coagulants are only adjuncts, to be used only in a few specified instances and stages.

The Role of Civil Defense in the National Blood Program

MARION C. MILLS, M.D.

Assistant Chief, Blood Program
Health and Special Weapons Defense Division
Federal Civil Defense Administration
Washington

The need for a blood program in the medical phase of civil defense is urgent in these troubled times. Korea, after some 29 months of war and 118,000 American casualties, is no nearer a peaceful solution. It is perfectly conceivable that our country could suffer a major enemy attack. The degree to which we prepare ourselves now to meet such a national emergency will in large measure determine our very survival.

Even with the rapid development and expansion of our air defense, General Hoyt Vandenburg has estimated that some 70% of attacking enemy planes would get through to their targets. Total preparedness is the only answer.

It is to this end that the Civil Defense Blood Program is procuring large federal reserves of blood plasma, plasma volume expanders, and other intravenous solutions. I will discuss these a little later.

National Blood Program

During the last 12 years, blood and plasma have assumed a major role in modern medicine. Because whole blood is in limited supply and the need for it increases daily both in our civilian hospitals and by the military, some mechanism for establishing a truly National Blood Program has become necessary, a National Blood Program which could coordinate all agencies and organizations concerned with blood, blood derivatives, and plasma expanders for national defense, a National Blood Program which could establish some priority for use of these substances, a National Blood Program which could coordinate public information on blood for the mutual benefit of all. Thus, on December 10, 1951, the President of the United States directed the Office of Defense Mobilization to provide a mechanism for establishing a single National Blood Program in accordance with the joint request of the Federal Civil Defense

Administration, the Department of Defense and the American Red Cross.

A Subcommittee on Blood was established in the Health Resources Advisory Committee to carry out this function. A central policy group has been organized to provide day-by-day guidance. It is composed of two members from each operating agency—the physician responsible for the blood program and the director of public information, and is chaired by the Staff Director of the Health Resources Advisory Committee.

Publicity Campaign

One of the first things this committee did was to plan and implement a nationwide publicity campaign to solicit blood donors for the National Blood Program as a whole rather than for any parts of the whole. The kick-off for this campaign will be a one-hour multi-network television and radio show on a coast-to-coast hook-up with Arthur Godfrey on Columbus Day, October 12, 1952.

Priorities Allocation

An important function of the Office of Defense Mobilization was to establish the priorities for the allocation of the blood collected through the National Blood Program. The first priority is given to the Armed Services for whole blood transfusions. This is a vital need since our Defense Department tells us that every battle casualty receiving blood or plasma in Korea is getting an average of nine transfusions. The second priority is the requirement for whole blood and blood derivatives for civilian needs. All the remaining blood collected through the National Blood Program is allocated to the production of plasma and blood derivatives to build a national reserve. The Office of Defense Mobilization also has the authority and responsibility for the day-by-day allocation of available blood and reserves of plasma and other blood derivatives to meet both military and civilian needs in the event of enemy action.

Plan For Civilian Allocation

Now you may question just how much plasma or plasma expanders we will need to at least partially protect our civilian population. Our present goal is to build a reserve of at least 7.5 million units, one-half of which will be plasma and one-half plasma expanders. With mass air attacks, it is estimated that we could suffer as much as 11 million casualties, of which only about 7.5 million would survive the first 24 hours. Approximately one-half of these casualties will require one or more transfusion of blood, plasma, or plasma volume expanders. To facilitate the estimation of transfusion requirements for any one city, we have determined the needs per 1,000 casualties surviving after 24 hours and described them in detail in the Civil Defense Technical Manual "Blood and Blood Derivatives Program." These estimates have been based partly on a careful study of the military experience with battle casualties in World War II and partly on data from Japanese casualties at Hiroshima and Nagasaki. We foresee two peak demands for transfusions. The first will occur in the 72 hours immediately following an attack when casualties will need resuscitation primarily from shock due to hemorrhage, trauma, and burns. The second peak will occur sometime after the tenth day when the effects of radiation illness will become manifest.

Requirements For Immediate Needs

The requirements for the immediate 8-10 hour need, which must be provided from the attacked area and its mutual aid facilities, is estimated to be approximately 75 units of whole blood and 400 units of plasma or plasma expanders per 1,000 casualties surviving after 24 hours. This takes into consideration the fact that a portion of that third of the casualties who do not survive the first day will be rescued before death and must receive medical treatment, including transfusions. Requirements for the remainder of the first 72-hour period must come largely from Federal reserves and mobile support blood collecting activities.

Target Louisville

We might for a moment visualize the situation should Louisville be one of the cities attacked in a multiple target strike. Louisville is in the heart of a critical tar-

get area which includes Clark and Floyd Counties of Indiana, and has a total population of well over half a million people. Suppose total casualties were 150,000, with 100,000 surviving after the first 24 hours. These casualties would require 7,500 whole blood transfusions and 40,000 units of plasma or plasma expanders in just the first 8-10 hours. In addition, they would need 60,000 units of whole blood and 30,000 units of plasma during the remainder of the 72-hour period—or a total of 67,500 units of blood and 70,000 units of plasma or plasma expanders during the first peak demand period. However, unless existing facilities have been organized and prepared for expanded emergency operations, they could not nearly meet the demand. According to the most recent American Medical Association blood bank survey, the existing blood bank facilities of the entire state, including Louisville, could be expected to produce only about 5,000 pints of whole blood during the first 10 hours. Thus, you can see how important it is to make adequate plans for rapid emergency expansion of your blood bank facilities—to train reserve auxiliary personnel who can set up and operate emergency bleeding centers or supplement the existing blood bank personnel—and how necessary is a local reserve of blood donor equipment, typing sera, recipient transfusion sets, plasma and plasma expanders. Of course it would be impossible for the state's facilities to meet the much larger 72-hour transfusion requirements of Louisville. The city would have to depend upon mobile support from neighboring states, or even from other regions of the country, plus supplies which can be moved in from Federal reserves after the first 8-10 hour period.

Federal Program

Now I would like to discuss briefly what the Federal program has accomplished in the last two years and what our long-range objectives are.

In 1951, the Federal Civil Defense Administration made \$20 million available to the state and territories for medical supplies on a matching basis. The states could match this dollar for dollar, making a total of \$40 million available. Only 37 states and territories participated in this program, utilizing a little more than half that sum (\$22,327,000). Kentucky provided \$19,753 to procure medical supplies, which included 1,836 blood sets. When I

say a blood set, I mean a packaged unit which contains one donor set, a recipient set, and a blood donor bottle. No typing sera or plasma was ordered. There were only two states adjoining Kentucky who purchased blood equipment last year, Indiana and Ohio. Thus, you can see what more must be done to prepare yourselves state-wise as well as interstate-wise against enemy attack.

Federal Funds Available

For 1952, the Federal Civil Defense Administration has not only a state and territorial matching fund program similar to last year, but a large Federal reserve program for medical supplies, most of which will be spent for blood program equipment. This year, \$19 million has been made available for the Federal reserve program and \$15 million available to states and territories for local reserves. Each state's share is based on population. Kentucky has been allotted \$287,400. Your state civil defense can apportion that money in any way it sees fit. The total amount, or a portion of it, may be spent for medical supplies and equipment, warning and communications systems, fire-fighting and rescue equipment, training and public education, whichever your state needs.

So far, we have made good headway towards building our Federal reserves of plasma, plasma expanders, blood collecting equipment, blood typing sera and intravenous solutions. Our plan is to store these reserves for the most part in Federal warehouses strategically located in or near critical target areas. A portion of these supplies, however, will be stored in cities under local custody so that they may be immediately available in the event of a national disaster.

At present, we have 1,200,000 units of PVP under contract, deliveries of which began last July. Approximately one-half of this will be distributed for storage under local custody in all target areas.

PVP

PVP is a synthetic plasma volume expander used extensively by the Germans in the last war. It is a colorless acetylene derivative put up in 500 cc. bottles containing 3.5% solution. An expendable recipient set is included in the package. Ex-

perience has shown that PVP, in proper dosage, is an adequate plasma volume expander for a period of 12-18 hours. However, about 50% of it is stored in an inert form—principally in the reticulo-endothelial system and the skin. It is slowly excreted through the kidneys over as long a period as ten years. To date, there is no evidence that PVP produces any histologic change or pathologic process in the body. The National Research Council, therefore, has recommended and the Food and Drug Administration has given us permission to purchase PVP for Federal war reserves. Until there is more long-term clinical evidence that its storage in the body is harmless, however, it will not be available in normal commercial channels.

Dextran

In addition to PVP, we have procured 300,000 units of dextran, another plasma volume expander. Dextran is a fermentation product of various strains of *Leuconostoc* bacteria grown on a high molecular weight sugar, saccharose. It was developed by the Swedes. Between molecular weights of 78,000 and 200,000, it is an effective plasma volume expander. Within four hours, approximately 25% of it can be recovered in the urine. Most of the rest of it is excreted more slowly and some is thought to be completely metabolized in the glycogenic cycle of the body. Like PVP, proper dosage is effective for 12-18 hours. Being a product of organic origin, dextran's allergenic properties have been a problem since its introduction for clinical use. I should like to remind you that both PVP and dextran are but temporarily effective substitutes for plasma, each has its disadvantages and each will be used only as a stop-gap until plasma, human serum albumin or whole blood can be supplied. There is no substitute for normal human proteins to replace those lost by the injured patient.

Long-Range Plans

Our long-range plans include the procurement of standard expendable donor sets and recipient sets, suitable amounts of blood grouping and Rh typing sera, Group "O" serum for proving Group "O" blood collections for emergency use with-

(Continued on page 418)

SPECIAL ARTICLES

REPORT

MEDICAL EDUCATION IN KENTUCKY

Editor's Note:

The Council at its April 23, 1953, meeting carefully considered ways and means of disseminating information on the expansion of medical education in Kentucky, and then passed the following motion:

"... that the President appoint a committee to draw up and publish an article which would set forth the views pro and con relative to medical education in Kentucky and that this article be published in the Journal by said committee."

As one of his last official acts as President, the late R. Haynes Barr, M. D., Owensboro, appointed C. C. Howard, M. D., Glasgow, as chairman of the committee to write this article along with Joseph C. Bell, M. D., Louisville; John S. Chambers, M. D., Lexington; Francis Massie, M. D., Lexington; and Carlisle Morse, M. D., Louisville, Richard J. Rust, M. D., Newport.

Your committee has seriously considered all phases of Medical Education in Kentucky and has agreed to render two reports for your consideration.

1. Population of Kentucky 3,000,000—has changed very little during the last ten years.
2. Active doctors—2,463 in 1952—Active doctors 2,338 in 1947. As you well know, the greatest number of doctors are in urban centers.
3. Kentucky doctors died last year...61
Kentucky doctors retired last year 12
Total loss73
4. Kentucky doctors graduated this June from University of Louisville 88
Kentucky doctors graduated this June from schools outside of Kentucky30
Total of Ky. boys and girls graduating from medical schools schools this year118
Gain of45
5. The Kentucky Medical Research Commission (State Agency) contracts

with the University of Louisville Medical School for medical research, paying the school \$200,000 per year for this service. This is the only money the state expends that aids the U. of L. Medical School to carry on a fine program of research.

6. During the last five years the admission to the University of Louisville Medical School has almost doubled for Kentucky students outside of Jefferson County.

7. The Kentucky Rural Medical Scholarship Fund, sponsored jointly by the Kentucky Medical Society and the University of Louisville Medical School, has begun to make real progress in distribution of physicians. *Distribution is the real problem.*

8. We believe strongly in the preceptor method—some good doctor should father every boy or girl that enters the medical field. The student should be required to spend part of his time with his preceptor before graduation.

9. A joint committee of the Kentucky State Medical Association and the University of Louisville Medical School should select a comprehensive number of rural hospitals from all parts of Kentucky for externships during the summers of their second and third years in medicine.

10. The faculty of the Medical School should be very careful to understand the county and doctors who sponsor the student. A teaching of deep respect for rural people and rural doctors will go a long way toward the decision of the young doctors to go back and serve the people who made their education possible.

11. County and District Societies should use local talent for at least 50% of their programs. This is a real education to all young men that we must recognize. Let them report their cases and observations.

12. Is the Medical School at Louisville graduating enough Kentucky boys and girls to supply the needs of our people? YES, we think so, if the distribution can be worked out. A problem for local com-

munities, medical groups, and the medical school.

13. Should the state of Kentucky contribute more money to medical education? YES, it should increase its medical research fund or pay for each medical student a specific sum for each year in medical school. A total cost to the state of four hundred thousand per year is justified.

14. Should the state build a new medical school with a 500 bed state hospital at Lexington? NO, this would cost the state \$20,000,000 for a building program, plus a \$2,000,000 cost per year to operate. It is not practical or sound financially with our state income as it is. We grant there must be some tax program worked out in the near future for education and health, but elementary education should receive the major portion of any new tax, then would come health, and indigent care. All indigents should be cared for near their home for obvious reasons—cheaper and more satisfactory to their families. A small number of indigents could be referred to the teaching Department of the University of Louisville Medical School, with hospital expenses paid for by the state.

Summary

1. Kentucky has one good medical school that needs the support of state funds.

2. It can graduate 110 Kentucky students yearly plus the 30 Kentucky students who graduate outside the state, (Total—140). This gives Kentucky an adequate number of new doctors each year. *The problem is distribution.*

Joseph C. Bell, M.D.

Carlisle Morse, M.D.

C. C. Howard, M.D.,
Chairman

A State Medical School at The University of Kentucky

Those who favor a second medical school in this state as a part of the University of Kentucky in Lexington must answer these questions:

1. Do we need it?
2. Is any other plan better?
3. How much will it cost?
4. Where will we get the money?

1. Our *needs* in Kentucky for more doctors have been clearly set forth in a number of studies. The number of physicians

in the United States was 134,000 in 1909 and is now over 200,000. In Kentucky the number has declined about 40 per cent from 1910 to 1952.

Two years ago a study was made by Drs. Anderson and Manlove of Chicago, representing the American Medical Association. These gentlemen worked with the Committee on Medical Education of the University of Kentucky. Their report stated that we need 140 medical graduates each year in this state and estimated that by 1965 we would need 180 annually.

When the University of West Virginia completes its expansion from a two year to a four year school, Kentucky will then be the only state in the South with no medical school as part of its state university.

The rapidly increasing demand for more doctors created by new medical and health programs, national, state, and local, will cause us to slip still further behind in the effort to meet these needs. Citizens are asking for and getting more service from doctors and the indications are that we will continue to need more physicians per capita rather than less for the next 50 years.

Kentucky in its 160 years as a state has invested greatly in the training of teachers, engineers, lawyers, agriculturists, journalists and business leaders. But not a single major plant expenditure has been made for the training of doctors.

Isn't it about time we accepted this responsibility?

2. The University of Louisville has been doing splendid work in medical education but the number of men they are training is not enough. The Medical School in Louisville has offered to increase the number of students up to 125 and eventually to 140 in the senior class with a subsidy from the State Legislature of fifteen hundred dollars annually per student. They, in Louisville, say that this is the greatest bargain ever offered in medical education. Like most bargains it has certain defects. First, it is the common opinion of medical educators, men who know, that for the best teaching and learning the graduating class should be less than 100. Second, the upper limit of 140 which the Louisville school may somehow graduate is enough now, perhaps, but soon will be inadequate.

(Continued on page 424)

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

G. Y. Graves, Bowling Green	President
J. Duffy Hancock, 704 Brown Building, Louisville	President-Elect
Charles B. Johnson, Russell	Vice-President
W. O. Johnson, 605 Brown Building, Louisville	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville	Treasurer
Hugh L. Houston, Murray	Speaker
Charles A. Vance, 310 Security Trust Building, Lexington	Vice-Speaker
Douglas E. Scott, Lexington	Orator in Surgery
Paul Simpson, Covington	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
Bruce Underwood, 620 S. Third Street, Louisville	1953
W. Vinson Pierce, 33 E. 7th Street, Covington (Alternate)	1953
W. Clark Bailey, Harlan	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate)	1954

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah	1953
Second District Walter L. O'Nan, 237 Second St., Henderson	1953
Third District De mas M. Clardy, Hopkinsville	1953
Fourth District J. I. Greenwell, New Haven	1953
Fifth District Richard R. Slucher, Buechel	1954
Sixth District L. O. Toomey, Bowling Green	1954
Seventh District Branham B. Baughman, Frankfort	1953
Eighth District Edward B. Mersch, 92 Arcadia, Covington	1954
Ninth District J. R. Cummings, Flemingsburg	1953
Tenth District J. Ferra Van Meter, 183 N. Upper Street, Lexington	1955
Eleventh District Hugh Mahaffey, Richmond	1953
Twelfth District Carl Norfleet, Somerset	1953
Thirteenth District Clyde C. Sparks, Mayo Arcade, Ashland, Chairman	1953
Fourteenth District Paul B. Hall, Paintsville	1953
Fifteenth District Edward Wilson, Pineville	1954

EDITORIALS

ELMER L. HENDERSON, M. D.

The American people and the medical profession lost one of their true servants in the passing of Elmer L. Henderson, M.D.

This Louisville physician, with his devotion to the American way of life and his years of service and leadership within the profession on the local, state and national level, left an imprint on the history of medicine and the nation which will not soon be erased. The principles which he espoused will stand as a perpetual monument to him if those who follow persist in upholding the cause of freedom.

In evaluating Doctor Henderson's contributions as president of the Jefferson County Medical Society, the Kentucky State Medical Association, the American Medical Association and the World Medical Association, it is well to remember that he was an active practitioner of medicine. The magnitude of his accomplishments aside from his private practice must be recognized as embodying a special urge to serve the profession and his nation.

Doctor Henderson was the seventh Kentucky president of the American Medical Association. The years during which he was president-elect and president of the A.M.A. were hectic ones for medicine. It was during this period that the weight of a national federal administration was being thrown behind efforts to socialize medicine in the United States. Much credit for the success of the people's rebuff of this drive must accrue to Doctor Henderson, whose zeal and energy were unceasing during this critical period for America.

Convinced that a change of administration in the federal government was necessary if the voluntary approach to medical problems was to have a fair chance, Doctor Henderson, a registered Democrat, accepted leadership of an interprofessional committee supporting Dwight D. Eisenhower for President. Under Doctor Henderson, this committee played an important role in enlisting support for Mr. Eisenhower from among physicians, dentists, attorneys, engineers and other professional people regardless of party affiliations.

Doctor Henderson recognized that organized medicine and individual physicians have a special responsibility if freedom in medicine is to survive. This was reflected in his personal views and in the acts of the American Medical Association under his leadership. None of these more clearly showed his concern for the future than his work as chairman of the American Medical Education Foundation. Its first president, Doctor Henderson continued at the head of this program to raise funds for aid to medical schools until his death.

To recount all of Doctor Henderson's accomplishments would be impossible here. When he became the first American president of the World Medical Association, simultaneously serving as A.M.A. president, he had been awarded the highest honors in the power of his colleagues to bestow. It can be said that he brought distinction to his profession, his state and the nation. He served the people well.

WHO CONTROLS THE VETERANS ORGANIZATIONS?

Doctors of medicine have a special interest in who controls the American Legion, the Veterans of Foreign Wars and other veterans groups. This is true because many matters relating to the practice of medicine are acted upon by these groups and, with an ever increasing veteran population, the weight of organized veterans opinion grows daily.

Sometimes the medical profession, rep-

resented by the A.M.A. and state or local medical association, finds itself in conflict with the stated positions of veterans groups. Such problem occasions have risen more often and on broader fronts as a result of expanded medical and hospital activities carried on by the Veterans Administration. The doctors feel that as medical men, experienced in meeting hospital and medical needs of all people, they

bring special knowledge and interest to these questions. The veteran feels that his concern for himself and his fellows is paramount. Both are right. That sharp differences of opinion should exist, is regrettable and unnecessary.

When such conflicts do arise, they serve to damage the medical profession and the public it serves, including the veteran. These crises develop because, despite the sincerest efforts of both, when organized medicine and a veterans organization sit down together, each is governed by mandates laid down by representative deliberations of its constituency.

It is understandable and fair to say that misunderstandings in the health field by members of veterans organizations are greater and are more common than misunderstandings by physicians. It is equally fair to say that the responsibility for such misunderstandings belongs primarily to the doctor and not to the veteran.

At several national American Legion conventions resolutions to give chiropractors and other cultists virtual equality with doctors of medicine in the medical service programs of the armed forces and the Veterans Administration have only been defeated by the narrowest of margins. In the 1953 convention of the Kentucky American Legion a similar resolution was tabled on the floor by a slight majority after receiving unanimous approval from the Resolutions committee.

On the national level, the state level and in local posts, the members and duly elected representatives of veterans organizations have officially gone on record as favoring proposals in the field of medical care which are harmful to the nation and themselves.

Wherein does the answer lie?

The average physician is a veteran. He understands the views and feelings of his fellow-veteran. He is also an authority in a special field that is of great concern to

the veteran. As a physician, he has the responsibility of giving his former comrades in arms the benefit of his knowledge. Others, with less laudable purpose, do so. Misguided resolutions do not grow spontaneously; they are cultivated. Perhaps this may make the doctor's task more difficult. It also makes his responsibility greater.

Who controls the American Legion or the Veterans of Foreign Wars? The veteran. The veteran who has enough interest in his country and his fellow veterans to participate.

These organizations, like our own medical associations, are governed through democratically elected representatives. They are governed by the lawyer, the merchant, the plumber, the carpenter, the dentist, the physician, or the chiropractor who takes the interest to participate in post affairs. Most of such men must rely on others for the validity of their opinions in the health and medical fields. They are not to be censored if we fail to give them the benefit of our special knowledge and training. We are to be blamed.

Such organizations as the American Legion, and the Veterans of Foreign Wars have over-all records of which they may well be proud. Their achievements can be measured not only by what their members have done as individuals in time of battle, but by the things for which they as organizations have stood and fought. Our debt to them is great. Their shortcomings are few.

As citizens, we have a responsibility to help in all phases of their work. As physicians, we have a special call on us in the field of health and medicine. By working both as veterans and physicians, we can make our counsel felt.

Who controls the veterans organizations? The membership. If you are not a member, join now. If you are inactive, participate fully. You owe it to yourself, other veterans and America.

President's Page

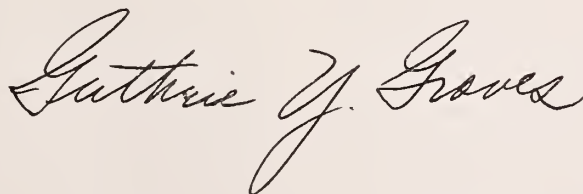
This is the last time I shall be responsible for the President's Page. On September 24 I shall turn over my office to Dr. Duffy Hancock. I think that I can assure him the wholehearted support of the entire membership of the Kentucky State Medical Association. This unity will be needed for we have many troublesome problems that will require attention.

Unfortunately the day is gone in which we can devote ourselves to our medical practice alone. Whether we like it or not we must turn our attention to the social and economic phases as well as the scientific side of medicine. Someone has to combat the drive of certain groups of individuals and certain elements in our government who wish to interfere with medical care and to socialize it. The fact that we now have a friendly administration does not guarantee that we will always have one. We must work at all levels—as individuals, as county societies, on the state level and on the national level to combat all trends that will affect medicine adversely.

We should ally ourselves with the groups that are striving for better health and better medical care. We must furnish them the leadership and the guidance they need so that they do not wander along false trails or follow false prophets.

Our medical association is only as strong as its members make it. What it is or what it will become depends on you. As with everything, you will receive from it just what you put into it. Whether it will be an inspiring association, an instrument that can clearly express our collective will, a force for better medical care and better conditions of health, or an inept, weak society, depends upon you, its members. Let's rally around our new president, and make our medical association everything we can desire.

Finally, I wish to thank everyone for his kindness and for his splendid support.



PRESIDENT

ORGANIZATION SECTION

International Farm Leader to Speak At Annual Dinner, Sept. 24

"Promises and Prospects" will be discussed by Allan B. Kline, president of the American Farm Bureau Federation, who is a "vigorous exponent of the system of free enterprise," and the featured speaker for the 1953 KSMA Annual Dinner to be held at 7 p.m. at the Crystal Ballroom of the Brown Hotel, Thursday, September 24, said G. Y. Graves, M.D., president of the State Medical Association.



Mr. Kline has spoken before the AMA and is highly regarded and widely recognized as a distinguished speaker. Well known for his international interest in farm problems and administration, he served as a farm consultant in 1945 at the United Nations meeting in San Francisco, and in 1946 attended an International Federation of Agricultural Producers as a Farm Bureau Delegate in London. At present he is president of this organization, which is an international body of national farm organizations.

Diabetes Committee Reports Good Response from Counties

A total of 79 county medical societies have named their Diabetes Committee chairmen for local implementation of the 1953 Diabetes Detection Drive to be sponsored by the Kentucky State Medical Association the week of November 15-22 according to the latest report issued by Carlisle Morse, M.D., Louisville, K.S.M.A. Diabetes Committee chairman.

The Diabetes Detection Drive, under K.S.M.A. sponsorship, is conducted annually in cooperation with the American Diabetes Association. The purpose of the campaign, which is under physician direction nationally as well as in Kentucky, is to detect as many previously undiscovered diabetics as possible. According to the American Diabetes Association there is one

undetected diabetic in the nation for each known diabetic.

"The response so far from county medical societies indicates that probable participation in the campaign throughout the state will be greater than last year," Dr. Morse said. "A number of counties which did excellent work in this program in 1952 have not yet sent in the names of their committee members. Since it is unlikely that they will fail to do so, last year's record which saw more than 80 counties cooperating will probably be exceeded."

County Societies Offer PR Course For Doctors' Secretaries

Presentation of the public relations course for doctors' secretaries, which has been developed by the Kentucky State Medical Association Education Campaign Committee, will begin for several county medical societies in October, it has been reported by W. Vinson Pierce, M.D., Covington, committee chairman.

The course, planned to be presented in each case over a three-month period, is available to any K.S.M.A. component medical society. At present the Education Campaign Committee has made commitments to institute the course during October, November, and December for the members of the Fayette County Medical Society and the Campbell-Kenton County Medical Society.

Details as to time and place for the course will be announced directly to the members of each county medical society. In general the material will be presented at three evening sessions spaced approximately one month apart. The plans call for a dinner, to be purchased by the secretary's own physician-employer, preceding each meeting. There is no limit on the number of office staff members which an individual physician may send to the classes.

"Every person on the physician's office staff which regularly meets the public can profit from the material the course includes in the opinion of the Education Campaign Committee," Dr. Pierce said. "Since so much of the doctor's good PR stems from the impression created by his employees, the committee hopes that eventually every medical society will avail themselves of the course and its benefits."

Interested persons should contact the K.S.M.A. headquarters office or a member of the Education Campaign Committee."

Other members of the committee are: George F. Brockman, M.D., Greenville; George W. Pedigo, Jr., M.D., Louisville; Richard G. Elliott, Jr., M.D., Lexington; Wendell V. Lyon, M.D., Ashland; Charles B. Stacy, M.D., Pineville; B. N. Pittenger, M.D., Paris.

Organized Medicine Loses World Medical Leader



Elmer L. Henderson, M.D., Louisville, past president of the Kentucky State Medical Association, the Southern Medical Association, and the World Medical Association, passed away at his home in Louisville, Friday, July 31.

Funeral services were held in the Louisville Scottish Rite Temple. Among those from out of the state who attended the funeral were past presidents of the A.M.A., Louis Bauer, M.D., Hempstead, New York; Ernest E. Irons, M.D., Chicago, and Roscoe L. Sensenich, M.D., South Bend, Indiana. Other A.M.A. representation included George F. Lull, M.D., secretary and general manager; Austin Smith, M.D., editor of the Journal of the A.M.A.; Ernest B. Howard, M.D., assistant secretary; J. J. Moore, M.D., treasurer; and John Bach, press director, all of Chicago.

Dr. Henderson was born in Garnettsville, Kentucky, March 23, 1885. He received his doctor of medicine degree from the University of Louisville in 1909 and entered practice in Louisville in 1911. With the exception of World War I service in the army medical corps, he remained in private practice in Louisville until his death.

He was president of the Jefferson County Medical Society in 1917. He served as president of the Kentucky State Medical Association in 1941. He was elected to the American Medical Association Board of Trustees in 1939, becoming its chairman in 1947. He was elevated to the presidency of the A.M.A. in 1950. While serving as A.M.A. president-elect, he became the first American president of the World Medical Association.

At the time of his death, Dr. Henderson was president of the American Medical Education

Foundation, an organization established to aid medical schools through solicitation of funds from physicians. He had held this post since the foundation's creation.

During the 1952 presidential election campaign, Dr. Henderson acted as chairman of the National Professional Committee for Eisenhower and Nixon. This group consisted of physicians, dentists, lawyers, engineers, and other professional people.

Dr. Henderson is survived by his wife, Mrs. Laura Owen Henderson, a son, William Owen Henderson, and a daughter, Henrietta Marie Henderson.

Blue Shield Raises Indemnities Without Increase in Rates

T. O. Meredith, M.D., Harrodsburg, President of Kentucky Physicians Mutual, Inc., has announced another sweeping increase in the schedule of indemnities of Kentucky's Blue Shield Plan by its Board of Directors.

The revision of the schedule of indemnities, which is carried elsewhere in the Journal (see page 417), shows the former maximum for surgical procedures raised from \$150 to \$225 for some lengthy operations and the allowance for anesthesia is now \$25 for all procedures for which \$175 or more is paid.

Indemnities for many other procedures were revised upward in order to correct inequities that existed in the schedule, Dr. Meredith said. Among these were tonsillectomy, hemorrhoidectomy, prostatectomy, and removal of cataract.

The revision of the schedule was based on a report of the Medical Advisory Committee, of which J. Duffy Hancock, M.D., Louisville, is Chairman. Dr. Hancock said that a large number of physicians selected at random throughout the state were asked to complete a questionnaire that compared indemnities paid by the Plan with actual charges made to subscribers in low and middle income groups. The questionnaires, which were returned unsigned, pointed out the adjustments that were made in the schedule.

All increased indemnities have been approved by the State Commissioner of Insurance and the new schedule will be paid on procedures performed on or after August 1, 1953, Dr. Meredith stated.

This is the third major increase in the schedule of indemnities that the Board has made without any increase of rates paid by subscribers, which is a tribute to the planning committee appointed by the Council with Oscar O. Miller, M.D., as its Chairman. "It is our in-

tention," Dr. Meredith said, "to continue to raise indemnities to the highest point consistent with actuarial soundness, which we hope will be high enough to justify practitioners to voluntarily accept our benefits as payment in full for subscribers in the lower income groups." "This, after all," he said, "is the highest type of service contract."

Fred W. Rankin, M. D., to Head ACS at 39th Congress

K.S.M.A. members of the American College of Surgeons with 11,000 other surgeons and physicians will witness the installation of Fred W. Rankin, M.D., Lexington, as president at the 39th annual clinical congress of the college, October 5 to 9, in Chicago's Conrad Hilton Hotel.

Dr. Rankin will address the congress at the convocation, October 9, on "The Responsibility of a Heritage of Idealism." Among other outstanding surgeons who will address the congress is Sir James Paterson Ross, M.D., vice-president of the Royal College of Surgeons of England.

Graduate courses under leading surgeons, forums, symposia, panel discussions, color television programs, medical motion pictures, cine clinics and exhibits—all concerned with development in surgery—will constitute the five-day program.

Faculty Members Promoted, Seven Others Added

Eleven promotions and new appointments have been made on the faculty of the University of Louisville School of Medicine, it was announced by James A. Kennedy, Ph.D., secretary of the Medical Council of the school.

Promotions were Walter S. Coe, M.D., to associate professor of medicine and staff executive of the Louisville General Hospital; Paul Mapother, M.D., to assistant professor of medicine; Morris M. Best, M.D., to assistant professor of medicine; William F. Cantrell to associate professor of pharmacology.

New appointments are as follows:

Richard H. Swigart, M.D., research fellow in histo-chemical research at the University of Minnesota, as assistant professor of anatomy.

R. Duncan Dallam, M.D., research associate at the University of Missouri, as instructor in biochemistry.

Earl F. Hoerner, M.D., fellow of the National Foundation for Infantile Paralysis, In-

stitute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, as assistant professor and acting chairman of the Department of Physical Medicine and Rehabilitation and acting director of the Rehabilitation Center, Inc.

Donald Covalt, M.D., clinical director of the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, as consultant to the Department of Physical Medicine and Rehabilitation and to Rehabilitation Center, Inc. (Dr. Covalt will appear on the K.S.M.A. annual meeting program Thursday, September 24.)

Herbert T. Ransdall, M.D., chief of surgery at the Battey State Tuberculosis Hospital, Rome, Georgia, as assistant professor of surgery.

J. I. Toong Ling, M.D., to instructor in radiology.

Hugh Bailey Lynn, M.D., Newark, New Jersey, as assistant professor of surgery.

Rural Health Council Makes Plans for 1954 Conference

The Kentucky Rural Health Council met August 5 in the office of the Kentucky State Medical Association secretary and general manager to discuss plans for the 1954 Kentucky Rural Health Conference and other business, according to Walter L. O'Nan, M.D., Henderson, council president.

The meeting was attended by fifteen persons, representing state-wide organizations that are members of the council. A program committee was named for the 1954 Kentucky Rural Health Conference and a nominating committee for officers to be elected at the council's next session. It was agreed that Louisville should again be the site of the conference.

Rural Scholarship Fund Grows With New Donations

The Courier-Journal and Louisville Times Foundation has contributed \$800 as a 1953 donation to the Kentucky Rural Medical Scholarship Fund, and the Foundation has indicated that similar contributions will be forth coming on an annual basis for three additional years, said C. C. Howard, M.D., Glasgow, chairman of the Kentucky Rural Medical Scholarship Fund.

The Honorable Order of Kentucky Colonels also has transmitted a check to the Fund in

the amount of \$500, Dr. Howard reported.

The Kentucky Rural Medical Scholarship Fund provides aid to medical students who agree to practice in rural Kentucky counties for the same number of years that they receive aid from the fund. It is a revolving fund which was established in 1946 by the Kentucky State Medical Association in cooperation with the University of Louisville School of Medicine.

House Introduces New Social Security Legislation

A recent bill introduced in the House of Representatives at the request of the Eisenhower administration would extend social security coverage to self-employed physicians, including interns, dentists, and other self-employed individuals, if they earn \$400 or more a year, reports the "AMA Washington Letter."

The American Medical Association House of Delegates has voted to oppose extension of social security to physicians, proposing instead that self-employed persons be permitted to defer income tax payments on a portion of their earnings which would be paid into restricted annuity plans.

Included in this coverage would be about 10.5 million persons, 6.5 million of whom would be brought into the system by mandatory action, says the AMA Washington office.

Civil Defense Committee Meets Under New Chairman

The Kentucky State Medical Association Committee on Emergency Medical Service held its first meeting under the new chairmanship of Thomas V. Gudex, M.D., Louisville, July 30, in Louisville, at which time progress reports from sub-committees were received and plans for furtherance of the medical aspects of civil defense were projected.

Dr. Gudex was appointed to the chairmanship of the committee to replace G. Y. Graves, M.D., Bowling Green, upon the latter's elevation to the presidency of K.S.M.A.

Among the guests in attendance at the committee meeting were H. C. Huntley, M.D., West Chester, Pennsylvania, Regional Medical Officer for the Civil Defense Administration; Judge Gilbert L. White, Frankfort, representing the state civil defense program; and Paul M. Crawford, M.D., and Benjamin M. Drake, M.D., both of Louisville, representing the Kentucky State Department of Health.

Five State Conference to Discuss Medical Care in Coal Areas

Representatives from the Kentucky State Medical Association Advisory Committee to the United Mine Workers Welfare and Retirement Fund, and officers of the Association will attend a conference on medical care in the bituminous coal mining areas to be held in Charleston, West Virginia, September 13, 14.

The conference, which was first held in 1952, is expected to draw representatives from five states—Kentucky, Tennessee, West Virginia, Pennsylvania, and Virginia.

KSMA officers who are invited include: G. Y. Graves, M.D., Bowling Green, president; J. Duffy Hancock, M.D., Louisville, president-elect; and Bruce Underwood, M.D., Louisville, secretary.

Louisville Medical School Gets Gift From Education Fund

The University of Louisville School of Medicine received \$25,140 from the National Fund for Medical Education July 26, as a part of the foundation's 1953 gifts to the 79 American medical schools.

Almost two million dollars was distributed in July, and represents money contributed by the medical profession, corporations and other private sources. A gift of \$15,000 was given to each school plus \$20 for each undergraduate medical student. In 1952 the University of Louisville received \$23,166.

The National Fund for Medical Education was formed in 1949 under the leadership of Dwight D. Eisenhower, then president of Columbia University. The fund has had the active support of the American Medical Association since its inception.

Centennial Volume Reviewed by Medical Library Association

The Centennial Volume of the Kentucky State Medical Association's Ephraim McDowell Memorial Meeting, edited by Emmet Field Horine, M.D., Brooks, was reviewed recently in the Bulletin of the Medical Library Association as follows:

"The published Papers of the Centennial Meeting of the Kentucky State Medical Association review the early historical background of the Association and its officers and republish its first President's address before the sec-

and annual meeting of the Kentucky State Medical Society at Louisville on October 20-22, 1952. This address is noteworthy in that it stressed medical ethics and standards of education and medical practice, much of which is applicable today. The scientific papers presented are by invited eminent authorities of national stature covering many fields of medicine. These papers continue the professional spirit and high scientific standards traditionally fostered by the Kentucky State Medical Association in its local and national role in medical practice and education.

William S. Stone, Colonel, MC, USA"

Data Given on Physician Survey After Military Separation

Results of the first six months of the continuing survey of physicians separated from active military service have been announced by the American Medical Association Council on National Emergency Service.

As of July 15, a total of 4,940 questionnaires were sent out and approximately 3,270, or 66 per cent, were returned. Average total time spent in the service by those responding was 23 months; average time spent in active service, exclusive of time spent in specialized training programs, 15.7 months; average tour of foreign duty, 7.4 months. The majority reported that they were properly assigned and rotated. Willingness to remain in service for more than two years was indicated by 636 physicians.

With regard to over-all staffing conditions, 23 per cent indicated that they were over-staffed; 25 per cent understaffed, and 52 per cent adequately staffed. Comparatively few offered additional remarks; of these 53 expressed dissatisfaction with military service, 171 seemed satisfied with their tour of duty.

Dr. Johnson Heads Central OB-GYN

W. O. Johnson, M. D., Louisville, vice president of the Kentucky State Medical Association, will preside at the annual meeting of the Central Association of Obstetricians and Gynecologists, of which he is president, at the Shamrock Hotel, Houston, Texas, November 5 to 7.

Other officers are Harold C. Mack, M. D., Detroit; Arthur B. Hunt, M.D., Rochester, Minnesota; Harold L. Gainey, M. D., Kansas City, Missouri; and Woodard D. Beacham, M.D., New Orleans. The association's headquarters is at 116 S. Michigan Avenue, Chicago 3.

Medical School Gets \$141,400 From Kellogg Foundation

The University of Louisville School of Medicine recently received from the Kellogg Foundation a grant of \$141,400, to be used in the field of preventive medicine, covering a five year program.

The grant will be used to initiate a new teaching program this fall for a group of junior students who will be assigned to individuals or families needing medical care and will follow the patients' progress.

Six faculty members will administer the new program representing the departments of medicine, surgery, pediatrics, obstetrics and gynecology, psychiatry, and community health, said C. Howe Eller, M. D., head of the community health department at the University of Louisville School of Medicine.

Dr. Gudex Re-named By Governor

Thomas V. Gudex, M. D., Louisville, was re-appointed July 17, to the state Council for Hospital Licensure by Governor Lawrence Wetherby, his term to expire June 30, 1956.

Other members of the Kentucky State Medical Association who serve on the council are Bruce Underwood, M. D., Louisville, secretary and general manager; C. C. Howard, M. D., Glasgow, Herschell B. Murray, M. D., West Liberty; and Gordon B. Carr, M. D., Sturgis.

Central Hospital Head Appointment Announced by Dr. Gaines

George P. Wyman, M. D., formerly of Wooster, Ohio, was appointed superintendent of Central State Hospital, June 15, it was announced by Frank M. Gaines, M. D., Louisville, state commissioner of mental health.

Dr. Wyman was former assistant superintendent of State Hospital, Marion, Indiana. He has had six years active duty in the army reserve and four years in the army as psychiatrist and chief of psychiatry. With the Veterans Administration he spent three years at neuropsychiatric hospitals as ward surgeon and five years in veterans hospitals at Marion, Indiana, and Lexington, Kentucky, as ward surgeon and chief of acute intensive treatment services. One year of his time was spent in private practice at Wooster.

Dr. Wyman is a member of the American

Medical Association, the American Psychiatric Association, the Ohio State Medical Association, and is a diplomate in psychiatry from the American Board of Psychiatry and Neurology.

New Members

The following doctors are new members of the Kentucky State Medical Association:

Bullitt county: Patrick J. Murphy M. D., Lebanon Junction.

Clay: Cecil W. Ely, M. D., Manchester

Gallatin: R. V. Bennett, Jr., M. D., Warsaw

Hopkins: Merle M. Mahr, M. D., Madisonville

Kenton: J. Maxine Shenk, M. D., Covington.

Jefferson: Thomas E. Andes, M. D., Louisville; John R. Duffield, M. D., Louisville; Arthur Lee Goodman, M. D., Louisville; Nathan Zimmerman, M. D., Valley Station.

Revision of Schedule of Indemnities of Ky. Physicians Mutual, Inc.

The Board of Directors of Kentucky Physicians Mutual, Inc., has announced that the following increased indemnities will be paid by Kentucky's Blue Shield Plan on all listed procedures performed on or after August 1, 1953.

	Former Indemnity	Indemnity Effective 8/1/53
Sinus Operations:		
Sinusotomy or trephine	\$ 15.	\$ 35.
Frontal, external	5.	30.
Submucous resection of nasal septum	35.	50.
Pharyngectomy; resection of Pharynx; laryngopharyngec- tomy	100.	150.
Caldwell Luc (radical antrum)		
Single	40.	50.
Double	60.	75.
Frontal, simple trephine	15.	25.
Radical	60.	75.
Combined external frontal and ethmoid operation	60.	100.
Oral Maxillary Fistula	25.	50.
Peritonsillar abscess	5.	10.
Branchial cyst, excision	35.	75.
Tonsillectomy	25.	30.
Tonsillectomy, secondary	10.	25.
Amputation of ear	10.	40.
Exostosis, external ear	5.	25.
Closure, Salivary Fistula	15.	25.
Laryngectomy	100.	225.
Arytenoidectomy	50.	100.
Intubation	5.	25.
Laryngeal Tumor	15.	50.

Tracheotomy	25.	35.
Removal of Cataract	75.	100.
Detached Retina (surgical)	00.	100.
Removal of lacrimal sac	35.	50.
Removal of eyeball	50.	50.
Removal of eyeball with implant	50.	75.
Repair of traumatic laceration of cornea or sclera	00.	50.
Other cutting operation on eyeball or eye muscles	20.	25.
Chalazion	00.	10.
Hemorrhoidectomy:		
Internal or Internal & External (in hospital)	50.	60.
Fistula, radical resection of:		
Single	35.	50.
Multiple	50.	75.
Abdominal perineal resection	150.	225.
Fissurectomy, with or without sphincterotomy (independent procedure)	25.	35.
Abdomen:		
Paracentesis	5.	10.
Abscess:		
Sublingual Abscess	5.	10.
Fractures:		
Zygoma, Closed	5.	15.
Open	10.	30.
Excision of bone cyst or chondroma	35.	50.
Ranula, excision	10.	25.
Total Gastrectomy	150.	225.
Total Colectomy	00.	225.
Partial Colectomy	00.	150.
Cutting operation for relief of congenital cyanosis	150.	225.
Drainage of Brain Abscess	00.	150.
Removal of foreign body in brain	00.	150.
Tractotomy (Medulla, Mesencephalon)	00.	150.
Excision of Cortical Scar	150.	175.
Excision of brain cyst neoplasm or abscess	150.	225.
Excision of brain tissues, topectomy	150.	200.
Excision of lobe of brain	150.	225.
Ventriculocisternostomy by catheter, Torkildsen's oper- ation (plastic tube, polyethylene)	50.	200.
Marsupialization of lesion of brain (cyst, abscess)	150.	200.
Prostatectomy, retropubic perineal, complete procedure, whole or part	100.	150.
Transurethral	100.	150.
Cholecystectomy with open ex- ploration of common duct	150.	175.
Without exploration	125.	150.

Radical mastectomy, including breast, pectoral muscles and axillary lymph nodes,		
unilateral	125.	125.
bilateral	150.	225.
Cardiotomy with exploration or removal of foreign body	150.	175.
Cardiorrhaphy; suture of heart wound or injury	150.	175.
Mediastinotomy, with exploration, drainage or foreign body removal	150.	175.
Esophagectomy	150.	225.

ANESTHESIA

Any operation for which the indemnity allowance is \$175.00 or more, the anesthesia allowance will be \$25.00.

Pertinent Paragraphs

W. W. Bauer, director of the AMA's Bureau of Health Education recently was selected as a new member of the "Radio Pioneers Club," which is an organization composed of radio veterans who have served the radio industry 20 years or more, and who have made significant contributions to its development. The "Radio Pioneers Club" was founded by the radio commentator, H. V. Kaltenborn.

"Medicine and the Mighty Atom," an AMA and NBC television production, was awarded a "certificate of Special Mention," denoting highest honors, by the Institute for Education by Radio and Television of Ohio State University. The award was presented at the 17th American Exhibition of Educational Radio-TV Programs for the program theme which featured radioactive isotopes in cancer research.

The Fifth Annual Course in Postgraduate Gastroenterology will be given under sponsorship of the National Gastroenterological Association at the Hotel Biltmore, Los Angeles, on October 15 to 17. A faculty selected from medical schools in the vicinity of Los Angeles under direction of Owen H. Wangenstein, M. D., professor of surgery, University of Minnesota Medical School, as surgical co-ordinator, and I. Snapper, M. D., director of medical education, Cook County Hospital, Chicago, as medical co-ordinator. Further facts may be obtained from the association, Department GSJ, 1819 Broadway, New York 23.

Kentucky physicians will be interested to know that the South Dakota Board of Medical Examiners has announced the passage of legislation creating an annual registration fee for licensees in that state in the amount of \$2.00. The registration takes effect January 1, 1954. If you are licensees in South Dakota and wish to maintain that license by payment of the registration fee, please contact the South Dakota Board of Medical Examiners, 300 First National Bank Building, Sioux Falls, South Dakota.

Bert Howard, M.D., assistant secretary of the American Medical Association, was recently honored by an invitation from Richard L. Bowditch, president of the United States Chamber of Commerce, to serve as a member of its Committee on Social Legislation, states the AMA. The committee studies national problems of social legislation and helps the Chamber of Commerce develop policies and programs to meet these problems.

A new FIFTH ADDITION—first since 1939—of "Nomenclature and Criteria for the Diagnosis of the Diseases of the Heart and Blood Vessels" has been published by the New York Heart Association and is distributed at \$4.95 by the American Heart Association and its affiliates. Profusely illustrated the monograph was completely revised and expanded primarily to clarify and standardize diagnostic criteria for cardiovascular diseases.

THE ROLE OF CIVIL DEFENSE IN THE NATIONAL BLOOD PROGRAM

(Continued from page 405)

out crossmatching, and bovine albumin, which is required for the single test cross-match to detect both ABO and Rh incompatibilities.

In addition to PVP and dextran, more than 1,593,000 standard blood collecting bottles containing an acid citrate dextrose solution are under contract, and 1,100,000 units of plasma. The degree to which the plasma contract is fulfilled depends entirely upon the number of blood donations given this year through the National Blood Program. Every one of you can assist the program by informing your patients and their relatives of the great need for blood and urging them to take an active part in their present and future security by donating blood regularly.

News Items

Edwin E. Carleton, M.D., former resident of Wheelwright and graduate of the University of Louisville School of Medicine, was appointed July 20 general medical director of the Inland Steel Company. He joined the company in 1937 at Wheelwright. Chairman of the health committee of the American Iron and Steel Institute, he is a past president of the Industrial Medical Association.

W. D. Henry, M.D., 84, attended a barbecue and festival in his honor July 10, at Crutchfield, 55 years after he began his medical practice there. Born in Hickman County, Dr. Henry graduated in 1898 from the University of Louisville Medical Department.

Edward Hermann, M.D., Newport, was honored on his 74th birthday in a 50th year observance of his medical service. Dr. Hermann graduated in 1903 from the Miami Medical College.

John Hummel, Jr., M.D., Williamsburg, moved to Stanton in July to practice medicine in Powell County. Graduating in 1952 from the University of Louisville School of Medicine, he interned at St. Elizabeth Hospital, Dayton, Ohio.

George M. Wyatt, M.D., formerly on the Fuller-Morgan Hospital staff at Mayfield, has joined the staff of the Veterans Administration Hospital at Dayton, Ohio, for special training in radiology.

F. Albert Olash, M.D., became associated July 20 with **George W. Pedigo, Jr., M.D.**, Louisville, for the practice of internal medicine. Born in Pennsylvania, Dr. Olash graduated in 1945 from the Jefferson Medical College at Philadelphia. After an internship at Henry Ford Hospital, Detroit, he served with the U. S. Air Force for two years. He then completed a residency at Henry Ford Hospital.

Donald B. Thurber, M.D., former health director of Nicholas County and Maysville, resigned in June and moved July 1, to Louisville for the practice of industrial medicine with the General Electric Company.

B. F. Reynolds, M.D., was honored recently on his 50th anniversary of medical service to his community in a Nicholas County celebration. A number of Dr. Reynolds' 4,000 "babies" joined in observing the event. Dr. Reynolds graduated in 1903 from the University of Louisville Medical Department.

Fabian J. Robinson, M.D., has announced his association in the practice of internal medicine with the Vaughn Clinic at Henderson. Graduating in 1948 from the Southwestern Medical College, University of Dallas, Dr. Robinson, a native Texan, interned at Parkland Hospital, Dallas.

W. Fielding Rubel, M.D., a resident in surgery at St. Joseph Infirmary, Louisville, left July 1, for the University of Michigan Hospital, Ann Arbor, after winning a two-year fellowship in lung and heart surgery. He graduated from the University of Louisville School of Medicine in 1949.

Norvin C. Kiefer, M.D., a guest speaker at the 1952 annual meeting of the Kentucky State Medical Association, recently accepted a position as Medical Director of the Equitable Life Assurance Society in New York City after resigning his commission with the U. S. Public Health Service and as Director of the Division of Health and Special Weapons Defense of the Federal Civil Defense Administration. Dr. Kiefer has been active in medical Civil Defense Affairs for many years.

C. R. Lewis, M.D., of Bardstown, has moved to Georgetown to establish a practice. He is a 1952 graduate of the University of Louisville School of Medicine; his internship was at St. Anthony Hospital, Louisville. Dr. Lewis served in the U. S. Army during World War II.

Nathan Zimmerman, M.D., has announced the opening of his office at Valley Station for the general practice of medicine and surgery. Dr. Zimmerman, a native of New York City, graduated in 1952 from the University of Louisville School of Medicine and interned at St. Joseph Infirmary Louisville.

County Society Reports

FAYETTE

The Fayette County Medical Society met on Tuesday, May 12, 1953, in the Good Samaritan Hospital Auditorium. The President read a clarification of the purpose of the Society as described by our Constitution, and explained that the purpose of this meeting with committee reports was to establish better public relations.

Coroner's report: Dr. J. F. Van Meter, chairman, members Dr. Darnell and Dr. Maxwell. After discussion, the chairman moved that the County Society go on record as favoring the election of a physician as a coroner here. Motion was passed.

Insurance Committee report: Dr. A. B. Barnett, chairman, members Dr. M. L. Dean and Dr. C. E. Rankin. The formal report was read by the Chairman. It was moved and seconded that the committee recommendations for a permanent committee appointed for three years so arranged that one new member will be appointed each year, be accepted. It was stated that this required changing the Constitution and the suggestion was that a Committee be appointed from year to year. Moved and passed by acclamation. Dr. Charles Vance raised the point of order by noting that the Constitution required a month lay-over with a ten-day notice to each member before such a change can be effected. Dr. Francis Massie moved that the Secretary contact the House of Delegates for clarification of the question and as to their advice. An amendment to the By-laws was postponed.

Committee on Domiciliary Care report: Dr. T. H. Hobbs, chairman, Dr. Betty Wheeler, Dr. John Prewitt, Dr. Escum Moore, and Dr. W. K. Massie, members. After discussion, Dr. Dorroh moved that the recommendations of the Committee be accepted, that is: (1) that the Society go on record as having suggested the establishment of a state nursing-home licensing act to our state medical society and the State Health Department that is comparable to the frequently quoted model, "The Indiana Nursing Home Licensing Act of 1947." (2) That the Society recommend that each Lexington Hospital consider the establishment and operation of its own convalescent unit or nursing home. (3) That the problem of establishment of nursing-homes maintenance, supervision and inspection should in addition be a community affair. It was suggested that the Society establish a committee (a) to study and present this problem to

our community organizations, namely the social clubs, women's clubs, and religious organizations, and (b) to investigate the care of indigent patients in the present nursing establishments of the city, who do not have a physician who is responsible for the medical needs. This was passed.

Public Relations Committee report: Dr. Rankin Blount, chairman, Dr. W. H. Pennington, and Dr. Harvey Chenault members. The chairman stated the committee was at an impasse because the press refused to accept any F.C.M.S. code unless it accepted completely the hospital-newspaper code. It was passed that a new committee be appointed to draw up a code better expressing our attitude and send it to the press. It was amended and passed that Dr. D. E. Scott be chairman of the committee.

Rural Health Committee report: Dr. Sam Warren, chairman, and Dr. Irving Kanner and Dr. Claude Bays members, presented the formal report and moved acceptance of the recommendations of the committee. These were (1) periodic joint-meetings of physicians with large farm and home groups to discuss emergency treatment at home and advisability of bringing serious cases to the emergency room. (2) To promote better coverage of rural people with pre-payment health insurance, such plans to be an indemnity and not service type. (3) To hold public forums or panels composed of physicians interested in this program to be sponsored by and held under the guidance of the Farm Bureau. (4) That the lay groups and physicians have another joint-meeting later in the year. It was moved by Dr. John Scott that each section be discussed separately and voted upon separately. The motion was passed. Dr. Warren's motion was then entertained that each recommendation be placed before the Society for a vote one at a time and each was discussed, voted upon, and passed.

Medical School Committee report: Dr. Francis Massie, chairman. A brief review of the activities of the committee was given to the Society, and the chairman requested a committee meeting to follow immediately after the adjournment to select and ask certain men to speak in the surrounding counties and councilor meetings.

A dinner meeting with Dr. Rudolf Noer and Dr. Clyde Sparks as guest speakers was announced by the President.

John B. Floyd, Jr., M. D., Secretary

SCOTT

The Scott County Medical Society met for their regular monthly meeting on Thursday, August 6, 1953 at the John Graves Ford Memorial Hospital in Georgetown. The following members were present:

Doctors F. W. Wilt, H. V. Johnson, C. R. Lewis, A. F. Smith, H. G. Wells, E. C. Barlow, and W. S. Allphin. Pat O'Neil was a guest of honor.

It was moved that the proposition of Dr. Woolfolk Barrow to run the hospital be deferred. Carried. Dr. Wells urged that the new hospital be opened as soon as possible.

Dr. Lewis gave a talk on poliomyelitis, describing the three types: abortive, non paralytic, and paralytic. A round table question followed after which the meeting adjourned.

H. V. Johnson, M. D., Secretary

UNION

The regular meeting of the Union Medicodental Society was held Tuesday night at 7:30 p.m. at the County Health Department. The meeting was called to order by G. B. Carr, M.D., president.

The minutes of the last meeting were read and approved. Frank Gaines, M.D., Commissioner of Mental Health for the State of Kentucky, was guest speaker.

The doctor started with the background of mental health in Kentucky. It was interesting to note that Kentucky has taken care of mental patients for one hundred years.

The doctor spoke of the problems of adequate personnel to staff the various state institutions; he said it is difficult to secure trained people. He is hoping the future will be brighter along these lines, much better care can be given patients with trained personnel. Many more patients would get well and be sent home.

The various types of treatments were discussed as well as the various types of cases.

Doctor Gaines feels a great deal can be accomplished with rehabilitation of most patients with special types of work after the acute phase is passed.

He spoke of a long range program for T. B. among mental patients, also the need for some changes in the state laws to build a better mental health program. The society enjoyed having the doctor speak as his subject was very interesting and different from the usual subjects. There being no further business the meeting was adjourned.

A. W. Andreasen, M.D.
Secretary-Treasurer

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met June 9, 1953, with Dr. William R. McCormack, president, presiding. Items of business were discussed as follows:

1. A letter from Dr. R. C. Blount of the Fayette County Medical Society was read concerning the establishing of a medical school in Lexington, Kentucky. It was voted to have this matter brought up at the sixth district meeting to be held at Glasgow in August.

2. A letter was read from Dr. G. Y. Graves concerning the establishing of county Civil Defense units. Dr. Graves suggested that the societies having more than ten members designate certain individual physicians to carry out this program. A committee composed of Doctors Henry S. Harry, Jesse T. Funk, and J. T. Gilbert was appointed. Dr. Harris spoke of an alternate plan to the above suggestion.

3. A committee composed of Doctors Richard F. Grise, R. O. Basham, and William O. Carson was appointed to establish a fee schedule for autopsies conducted.

4. The proposal of Circuit Judge John B. Rodes that the Society endorse a panel of physicians to serve as unbiased medical experts was approved by the Society.

5. It was voted to have a joint meeting in July with the dentists of Warren County.

A very informative and interesting discussion was given on "The Recent Advance in the Diagnosis of Heart Disease," by Dr. Thomas Blake of Nashville, Tennessee.

Charles M. Francis, M.D., Secretary

WARREN-EDMONSON

The Warren-Edmonson County Medical Society met on July 14, 1953 at Bowling Green. Dr. W. R. McCormack, president, presided. This meeting was held as a joint meeting with the Warren County Dental Society.

The application of Dr. George T. Procter for membership in the Warren-Edmonson County Medical Society was approved.

The program for the evening was a roundtable discussion of clinical problems of dentistry and medicine. Following this a committee composed of Drs. Dan McIlvoy, R. O. C. Green, and G. H. Wells was appointed to meet with a similar committee of dentists to formulate a program of public education, improve public relations, and effect an understanding leading to the eventful adoption of fluoridation of water in the city of Bowling Green, to lower the incidence of dental caries as a public health measure.

Charles M. Francis, M. D., Secretary

In Memoriam

RESOLUTION ADOPTED BY THE COUNCIL AT ITS AUGUST 6 MEETING ON THE PASSING OF

ELMER LEE HENDERSON, M. D.

WHEREAS, in the passing of Elmer Lee Henderson, M. D., of Louisville, Kentucky, on July 30, 1953, the nation lost one of its most honored citizens and the people and medical profession of the world suffered an irreparable loss, and

WHEREAS, Doctor Henderson brought dignity, courage, and clear vision to his distinguished service as president of the Jefferson County Medical Society, the Kentucky State Medical Association, the Southern Medical Association, the American Medical Association, the World Medical Association, and the American Medical Education Foundation, as well as to his numerous other civic and professional activities, and

WHEREAS, Doctor Henderson, through his vigorous devotion to the cause of freedom in all phases of American life, provided long and continuous leadership, which immeasurably helped the people reaffirm their dedication to America's principles of liberty, now therefore,

BE IT RESOLVED that the Council of the Kentucky State Medical Association gratefully acknowledge and affirm its deep appreciation for Doctor Henderson's unsparing work as physician, citizen and medical leader, and his everlasting gifts to his fellow-man, and

BE IT FURTHER RESOLVED that the resolution of the Council of the Kentucky State Medical Association be made a part of its permanent record and that a copy be sent to Mrs. Laura Henderson of Louisville, Kentucky, the bereaved widow, assuring her of our most sincere sympathy in the great loss that the entire profession shares with her.

JAMES SUTTON BRUMMETTE, M.D.

Orlando, Florida

1882 - 1953

Lt. Col. James Sutton Brummette, U.S.A. (Ret.), died May 20, 1953 in Walter Reed Hospital, Washington, D. C., after a long illness. His body was returned to Lexington, his former home, for burial.

Dr. Brummette, a veteran of both World

Wars, saw 25 years service in the U. S. Army Medical Corps before his retirement in 1942. Since that time he has been living in Orlando, Florida.

Born in 1882 at Williamsburg, he graduated from the University of Louisville Medical Department in 1909 and practiced surgery for a number of years in Jacksonville, Florida.

He was with the 42nd (Rainbow) Division in World War I and served in the Philippines and as chief surgeon at a number of army hospitals in the states in World War II.

SAMUEL L. STULL, M.D.

Flaherty

1885 - 1953

S. L. Stull, 68, died May 3, 1953, at the Veterans Hospital, Louisville, where he had been a patient for seven months.

Dr. Stull has practiced medicine at Flaherty, Big Spring, and Vine Grove since he graduated in 1917 from the University of Louisville Medical Department. He came to Kentucky from Pennsylvania where he was born in 1885.

Dr. Stull made his home at Flaherty. He was buried in Zachary Taylor Cemetery, near Louisville.

GOEBEL W. NEWSOM, M.D.

Ft. Pierce, Florida

1895 - 1953

Goebel W. Newsom, Sr., 58, died at his home in Ft. Pierce, Florida on May 15, 1953.

Formerly of Praise, Kentucky, he retired in 1949 in ill health and became a resident of Florida. He served Pike County, his birthplace, as a general practitioner and was mayor of Elkhorn City for 14 years, until his retirement in 1949.

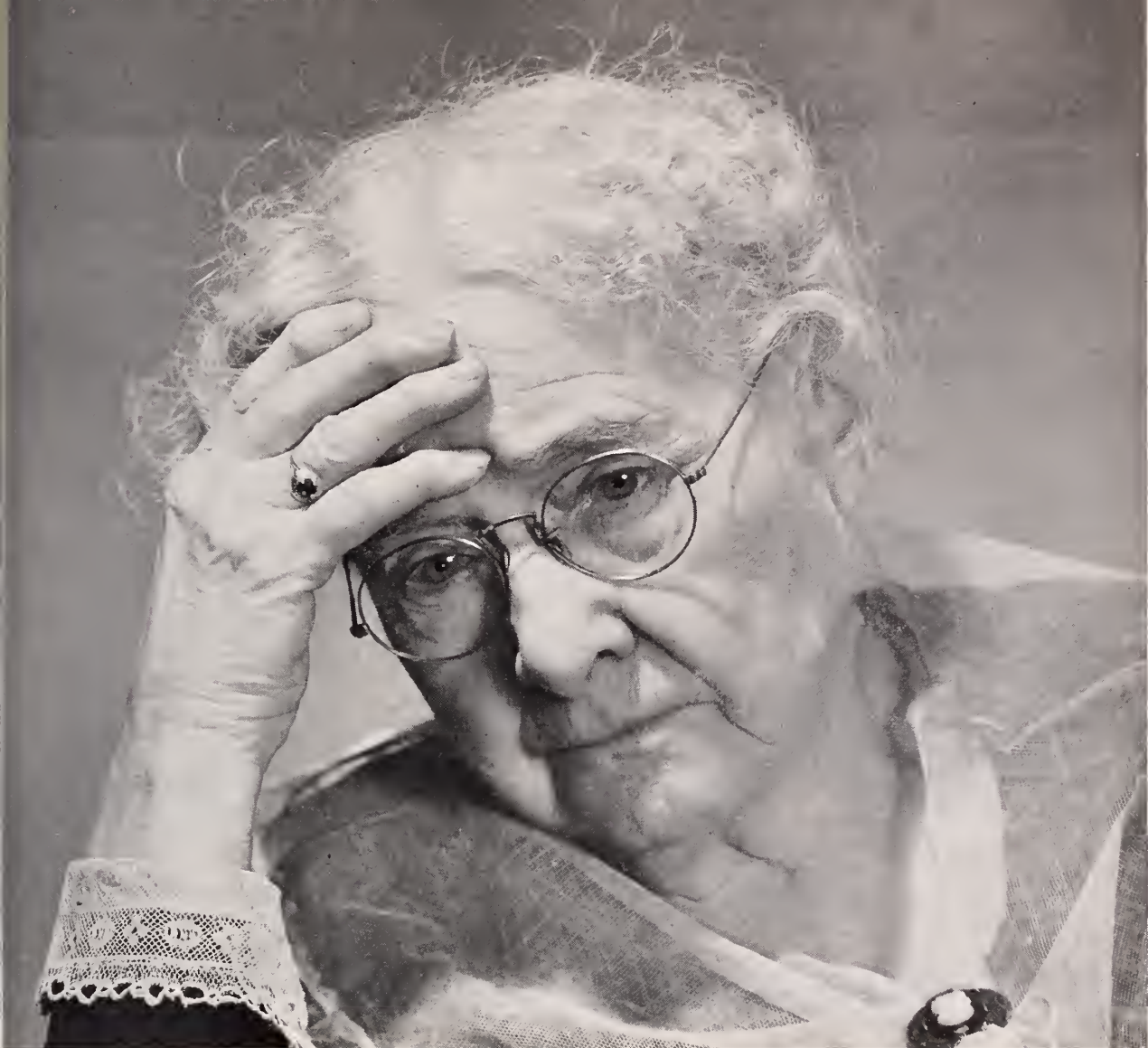
JOSEPH I. SLEET, M.D.

Tucson, Arizona

1880 - 1953

Joseph I. Sleet, 73, died May 2, 1953, in the Veterans Administration Hospital at Tucson, Arizona.

Formerly a psychiatrist at Central State Hospital, Lakeland, Kentucky, Dr. Sleet was forced by his health to move to Tucson only two years after he joined the staff in 1943. He graduated in 1903 from the Kentucky School



The inevitable restrictions of advancing years, the reduced activity and a lowered intake of bulk-producing foods all contribute to the high incidence of constipation in older persons.

CONSTIPATION IN THE AGED

Constipation is almost a universal complaint of geriatric patients

Frequently, too, the protracted use of cathartics has left the colon in an atonic state and it is no longer capable of effecting a normal evacuation.

Metamucil has long been recommended for the treatment of constipation in the elderly. A highly refined vegetable product which is free from irritants, Metamucil effects a natural mechanical stimulus in the colon which helps the dysfunctioning muscles to regain and maintain their normal tone.

Metamucil may be safely prescribed for prolonged use without fear of dependence, intestinal irritations or allergic reactions.

Metamucil® is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

SEARLE *Research in the Service of Medicine*

of Medicine at Louisville and practiced general medicine many years before turning to psychiatry.

He was returned to Kentucky for burial in Zachary Taylor Memorial Cemetery near Louisville.

OMER E. FERGUSON, M.D.

Owensboro

1888 - 1953

O. E. Ferguson died on April 26, 1953, in the Owensboro Hospital following an eight months illness. A former Breckinridge County physician and mayor of Cloverport, he had lived at Owensboro since 1949.

Born in Jonesboro, Tennessee, in 1888, he graduated from the University of Buffalo Medical Department at Buffalo, New York, in 1914. He began his practice at Breckinridge County in 1915.

Dr. Ferguson had engaged primarily in the practice of pediatrics.

GEORGE T. CORUM, M.D.

Corbin

1882 - 1953

George Tye Corum, 71, Corbin, died April 25, 1953 at the Southeastern Kentucky Baptist Hospital after suffering a heart attack at his office.

Dr. Corum was a 1909 graduate of the University of Louisville Medical Department and interned at a Lexington mental hospital. His practice began in industrial medicine with a coal company near Pineville. Later, he moved to Wilton and to Corbin in 1918, where he had practiced since.

He was formerly in partnership with the late Doctors F. S. Smith and L. S. Siler.

MARVIN S. RANDELL, M.D.

Prestonsburg

1887 - 1953

Marvin S. Randsell, 66, died of a heart condition at Sts. Mary and Elizabeth Hospital in Louisville on May 25, 1953. He had served Floyd County as health officer for 25 years.

A native of Owen County, 1887, he was a graduate of the University of Louisville Medical Department, 1919. He then opened his of-

fice at Lusby's Mill where he remained until 1928, being the last "village doctor" to serve there. In 1928 he moved to Prestonsburg where he lived until his death.

The American Fracture Association will hold its 14th annual meeting October 12 to 15 at Mission Inn, Riverside, California. Arthur L. Cooper, M.D., Somerset, Kentucky, will be one of the speakers.

A total of \$1,768,207 was spent in Kentucky by The Borden Company in 1952 for milk and other farm products, payrolls, and taxes—an increase of \$35,079 over 1951—according to an expenditure breakdown by the company's prescription products division. This compares with \$508,172,763 spent by the company in the United States. There are 279 stockholders in Kentucky.

Advertisers in the Journal are carefully selected. Only those meeting our advertising standards may use the facilities of our pages. No advertisement will be accepted which, either by intent or inference, would result in misleading the reader. May we suggest that you review the advertisements in each issue and, when occasion arises to prescribe products featured or to use the facilities offered, tell them you saw their advertisement in the Journal of the Kentucky State Medical Association.

All national legislation, including that of a medical nature, which was pending at the time of the adjournment of the first session of the 83rd Congress does not necessarily die because it was not passed, but remains in committee or on calendars, and will be acted on at the second session, reports the American Medical Association not passed reports the AMA Washington office at the end of the second session does die and must be introduced again.

"Films in the Cardiovascular Diseases, Survey, Analysis, and Conclusions," a monograph prepared by the staff of the Medical Audio-Visual Institute of the Association of American Medical Colleges, is published in co-operation with the American Heart Association. It includes detailed, critical reviews of 62 medical motion pictures on cardiovascular subjects and lists an additional 118 films in this field. It may be purchased at \$1.50 or \$2.00 from the American Heart Association.



**It had to be good
to get where it is**



THE COCA-COLA COMPANY

Physicians' Statement and Bookkeeping Service

"Modern management practices stress more efficient handling of the administrative end of your office. Specialists who are equipped and trained to do a better and more economical job of your record-keeping are the logical answer to the monthly statement chore and the annual tax problems."

McGRAIN & McGRAIN

P. O. Box 1554
Louisville, Ky.
Cypress 2747

Seventh and Spring
New Albany, Ind.
4-5782

A STATE MEDICAL SCHOOL AT THE UNIVERSITY OF KENTUCKY

(Continued from page 407)

Another plan, the so-called regional plan, of sending our boys and girls out of the state for their medical education is not good, because at any time these out-of-the-state opportunities may be closed. Why not give our boys and girls what they deserve at home? If we depend for medical education or schools outside Kentucky, why not close up our School of Agriculture at the University of Kentucky and send our future farmers to Auburn and L. S. U.?

The regional plan and the Louisville plan are both stop gap, temporary substitutes. The only effective plan is a long range one. Another medical school in this state is the only acceptable answer. Why not start planning for this now?

Don't let us fool ourselves that the rural areas are going to be helped much by either of the plans we are against. Young or old, doctors are not going to the rural areas to practice until they can make a better living there than they can in the cities. When the saturation point for doctors in urban areas will be reached no one can say, but it seems that turning out

more doctors is the best answer.

3. How much will it cost?

Again let us not evade or deceive ourselves. It will cost plenty. Using the budgets of other medical schools we think twenty million dollars spent over a period of eight years with the annual cost of maintenance after this initial period of two to three million dollars should be enough to graduate 75 physicians each year.

4. There are various ideas as to how this money can be raised. A special tax on some widely used luxury is a dangerous source because the industries making the luxury may be strong enough to get the tax repealed. Such a tax on soft drinks West Virginia has, which will raise five or six million a year for medical education alone. We are hopeful but not confident that this money can be raised without a three per cent general sales tax. We are in favor of such a tax and believe the men in Frankfort should stop being afraid of it. There is a growing sentiment for the 3% sales tax and the income so derived could be used for education on all levels throughout the state.

JOHN S. CHAMBERS, M.D.

FRANCIS M. MASSIE, M.D.

The 82 million dollar budget requested for health and medical affairs for the Federal Civil Defense Administration for the fiscal year 1954 was reduced to 27 million dollars by Congress. The over-all budget for the FCDA fiscal year was fixed at \$46,525,000.

Tax exempt educational and philanthropic foundations, often contributors to medical education and research, will be investigated by a special House of Representatives committee to determine whether any of the foundations are using their resources for subversive, political, or un-American activities. Representative Carroll Reece, a Republican from Tennessee, has been named chairman of the special House committee, reports the "AMA Washington Newsletter."

"Health Services for School Children," will be the theme for the American Medical Association's fourth national Conference on Physicians and Schools, sponsored bi-annually by the Bureau of Health Education. This year's conference is being held September 30 to October 2nd at the Moraine Hotel, Highland Park, Illinois. More than 200 representatives are expected to attend.

The National Red Cross closed 15 of its blood collection centers and simultaneously ended contracts with 17 community blood banks on August 31, because of the ending of the Korean war, the Office of Defense Mobilization has announced. The Red Cross will continue to collect blood for remaining military needs, civilian usage, and for possible use in a natural disaster or atomic bombing attack.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

OCTOBER, 1953

NO. 10

Diarrhea in Infants and Children

KENNETH P. CRAWFORD, M.D.

Louisville

Diarrhea is a symptom that may be produced by a variety of causes. These causes may be external, enteric or parenteral, predisposing or directly productive.

Predisposing Factors

It is well established that age is a factor. Infants, the aged and infirm are especially susceptible. Whether Epidemic Diarrhea of the Newborn is a specific disease, or rather a function of tender age, has not been definitely determined. Reports of epidemics in newborn nurseries, mental institutions and homes for the aged and infirm are fairly common.

Weather is a factor. A seasonal incidence of cases may be noted with a tendency for primary diarrheas to show increases in hot, humid weather especially. Fewer epidemics and ones of lesser severity are reported in cooler climates. However, in the past few seasons, it has been noted that the hospital census in the isolation sections of Children's Hospital and St. Joseph's Infirmary, Louisville, Kentucky, have remained high during the winter season, apparently as the result of diarrhea associated with other, particularly respiratory, infection.

General nutrition and health levels are factors in resistance to the development of diarrheal diseases. The incidence of diarrhea among the malnourished or debilitated of any age group is greater than among a similar healthy group.

Hygiene and the level of sanitation are important factors which should need no further discussion in this paper.

Artificial feeding has been considered a factor and still is for that matter. Dr. Holt, in the first edition of his *Pediatric Text* in 1897, commented that of 1,943 fatal cases of diarrhea he had collected from his practice and dispensary observation, only 3% had the breast exclusively. He did not move to incriminate artificial feeding *per se* even at that time, but rather commented on the increased possibility of contamination of feedings and imbalance of formulae. Upon direct questioning of mothers in my practice recently, I have found an alarming percentage who discontinue sterilization techniques of formulae months before I recommend such.

Directly Productive Factors

The proof of specific infectious organisms producing diarrhea is frequently difficult. A well accepted routine is to take three stool cultures preferably by rectal swab technique. If these are negative, bacterial infection is less probable. By default many of these cases are considered viral in etiology. Proof of a virus has been evidenced in animal studies and reports of passage of diarrhea experimentally by use of nasopharyngeal washings and filtered stool media in humans have been made.

Many bacteria may cause diarrhea. Some are consistently pathogenic and may be considered etiologic when found. Others are normally saprophytic or "fellow travelers" but are assumed under certain conditions also to be pathogenic.

The following are of the first group:

- (1) Dysentery bacilli
- (2) Salmonella group, including typhoid and paratyphoid

Those pathologic at times are:

- (1) Streptococci
- (2) Staphylococci
- (3) Friedlander's Bacillus
- (4) Proteus vulgaris
- (5) Proteus morganii
- (6) Pseudomonas aeruginosa

These organisms have at one time or another been incriminated in epidemics of diarrhea.

Endameba Histolytica may produce diarrhea in infants and has been reported in numerous instances in children even under one year of age.

Some recent work tends to incriminate the pathogenicity of *E. coli* with division of the organism into many strains, some of which show more disease production than others.

Toxins of organisms growing in culture proportions in contaminated food, of course produce acute food poisoning with diarrhea as a symptom.

Parenteral or nonenteric infection may cause diarrhea as one of its predominant symptoms. The incidence of this varies widely depending on the infection and various epidemics. This type is most commonly associated with respiratory symptoms and the whole complex labelled by the laity the "virus" or "intestinal flu." Fortunately, in older children and adults, this is usually not a critical illness, but again it is not unusual to get a history of this type illness in other members of a family with an infant critically ill of diarrhea, thus incriminating the same illness as the etiologic agent.

Dietary factors include indiscretions of diet, overeating, excessive intake of certain food, poor mastication, improperly balanced formulae, etc. In connection with this, and probably more common in the very young aged groups, gastro-intestinal allergy must be included. This condition may be associated with general symptoms of colic, indigestion, distention, vomiting, and diarrhea. It is not unusual to get a history of increased number of stools associated with more water and especially mucus. The diagnosis here may be made by noticing the development of symptoms upon each ingestion of the aggravating substance, by presence of urticarial rash, or respiratory allergic symptoms, increased stool mucus containing eosinophiles or by recovery upon elimination of the agent.

Less common etiologic factors include starvation diarrhea, celiac disorders, excessive use of laxatives and purgatives, nervous tension and adrenocortical insufficiency to name a few.

Incidence

The incidence of diarrhea in Kentucky may only be postulated. The number of deaths from diarrhea of all etiology as reported in the 1951 Kentucky Vital Statistics Report was 360.

Further breakdown according to etiology is as follows:

Epidemic Diarrhea Newborn—	137
Gastroenteritis and colitis, all ages—	177
Under 1 year	118
1 - 4	18
5 - 9	2
10 - 19	1
20 - 29	0
30 - 39	2
40 - 49	1
50 - 59	5
60 - 69	6
70 - 79	11
80 -	13

Dysentery - 45

Typhoid - 1

Paratyphoid - 0

The mortality figures for the very young and very old are impressive. As we must consider all of these deaths preventable under ideal circumstances, further consideration of the problem is essential.

Prevention and Control

Great strides in public health awareness, sanitation, sewage disposal, protection of food, milk and water supplies, insect control, etc., have been made in recent years. In addition, the discovery of specific anti-infective agents has given us drugs to use in the control of infection. The increased use of blood, plasma, electrolyte solutions, etc., plus the availability of laboratory facilities to determine the status of a given patient, have aided in the stride. Yet it takes the trained eye of the physician to evaluate each case in order that unnecessary hospitalization of a case not be made, or that early hospitalization be ordered for a critical case.

Clinical Picture

Clinical manifestations of diarrhea may best be grouped and treatment outlined according to severity. The only pitfall of such grouping is that a case may progress

in a mild manner only to suddenly become worse or to do so because of a prolonged mild upset.

Mild diarrhea is the type frequently handled by the busy physician by phone, or even by the mother who has weathered previous episodes. Symptoms include loose stools, two to six in number per day, lasting perhaps for two or three days, unassociated with too much change in stool color. Vomiting if present is slight, anorexia is of short duration, malaise and/or general symptoms are relatively nil. Diet restriction, rest, liquids, perhaps antispasmodics and/or antidiarrheal drugs usually suffice.

Moderate diarrhea is as above with exaggeration of the process. Fever is present to a mild degree, vomiting may be a little more severe, the child is definitely ill—listless, irritable and later lethargic. The stools are more profuse, watery, foul and with a color change to greenish. Excoriation of the buttocks is common and anorexia is more pronounced. This type is treacherous. The child, with home nursing care and outpatient medical measures may recover, but he also may become severe, requiring hospitalization. Careful examination of this child is essential. He must be evaluated as to the state of disorder secondary to the diarrhea, plus a search for other systemic infection.

Severe diarrhea may start as such or be the end result of protracted or untreated milder types. High fever, toxemia, lethargy, prostration, stupor and convulsions may occur. Vomiting may be severe, associated with abdominal distention and explosive, watery stools.

Fulminating infections are seen in which a very explosive and overwhelming course is followed with death in 12 to 24 hours, even in spite of all therapeutic efforts. This has been called "cholera morbis" in addition to other names.

Clinical Evaluation

Many of the findings associated with diarrhea are a result of the loss of fluid. As the case progresses the changes are also more a function of disturbance in electrolyte balance, loss of protein, anemia and the failure of metabolite excretion because of poor kidney function, secondary to oliguria.

Dehydration produces the rapid weight loss, dry skin and mucus membranes,

sunken eyeballs and poor tissue turgor. As a result of the loss of fluid and electrolytes through stool loss and vomiting, the lack of intake, the decreased kidney output (initially a conservation measure, sometimes later kidney failure) the entire body system is deranged.

Estimations of the degree of upset are necessary and in more severe cases require the aid of the laboratory. Based on weight loss, general appearance and tissue turgor, an estimation of fluid loss may be made. Blood count, hematocrit, CO_2 combining power, pH of blood and NPN determinations are of assistance in the evaluation. From this, and depending on the degree of severity, the treatment schedule is determined.

Treatment

Starvation for the control of stooling is likely the most effective. This period, depending on severity, may be for 12 to 36 hours or longer. When oral feeding of much quantity is restarted, regardless of the length of the starvation period, some increase in stooling may be expected. During this starvation period, sterile water, 5% glucose water, or 5% "Arobon" water may be given if vomiting does not persist or distention is not severe.

Skimmed milk is then usually started, sometimes with 5% Arobon added. Non-specific drug therapy used in this phase of treatment in the home or hospital may include many proprietary agents. Arobon, Nestle's preparation from the carob bean, has a primary constipating effect. It has received good reports, (see bib.) has shortened the course of stooling materially, and constipation appears to be the only complication. Reluctance on the part of little patients to take the material is reduced as a result of starvation and resultant hunger. Saccharin or "Sucaryl" may be added to give some flavor.

Kaolin-pectin mixtures are almost traditional as are bismuth preparations. "Appella" powder and pectin and tomato pectin preparations are available. "Resion"—a mixture of insoluble adsorbent ingredients—is apparently a powerful adsorbing agent with the capacity to adsorb and bind toxic products, etc., with good symptomatic relief if taken in large doses, i.e., one tablespoon every hour for four doses, then every two to four hours.

In severe diarrhea, replacement therapy must be instituted to correct dehydration,

acidosis and shock. This increases blood volume, restores renal function and re-establishes acid-base balance.

Blood volume is decreased as a result of fluid loss including essentially isotonic liquid through the stools plus loss of serum protein through intestinal membranes and also into intercellular space.

The acid-base imbalance is a result of the heavy loss of basic ions through the alkaline intestinal juices. Although some acid ions may be lost through vomiting, even severe vomiting with diarrhea yields an effective acidosis. Carbonic acid is formed as a result of replacement of the bicarbonate radicle by chloride, sulfate and phosphate salts which accumulate in body fluids. The body attempts to rid itself of the carbonic acid by the respiratory excretion of CO_2 and H_2O . Hyperventilation or acidotic breathing occurs. This reaction is doomed to failure and death will ensue if acid-base balance is not re-established. This is only one of the chemical disturbances associated with severe diarrhea. Ketone acids are formed in excessive amounts, lactic acid accumulates in the system, calcium is mobilized from bone and then lost in urine and feces, potassium is lost from the cells to the extracellular fluid. As previously mentioned, serum protein is lost in the intestines and into tissue spaces. Salt depletion is marked in most cases. NPN is elevated in relation to the degree of dehydration.

To establish renal flow an initial infusion of physiologic sodium chloride, 10 cc. per pound, may be given after withdrawal of blood for tests. If acidosis is present this may be supplemented with an equal amount of 1/6 molar sodium lactate immediately. Severely dehydrated infants and small children may be calculated to receive approximately 100 cc. of fluid per pound in the first 24 hours of therapy.

During the first few hours kidney function is reestablished and following this plasma or blood should be added at 10 cc. per pound of body weight (normal wt.). The remaining schedule is made up of glucose in water.

At the onset of fluid therapy, serum potassium levels may be normal (5.0 meg/liter) or high (7.0 meg/liter). However, this level falls as salt is replaced and potassium again travels into the cells. A resultant hypopotassemia may result with paralysis, loss of muscular tone and myo-

cardial weakness. Distention may occur. Therefore, fluids containing potassium may be started slowly subcutaneously or intravenously after the initial treatment period.

As previously mentioned, calcium is lost from the skeleton in the acute stage. As acidosis and dehydration are corrected, some patients develop postacidotic hypocalcemia with lethargy, irritability, convulsions, respiratory difficulty, edema and hemorrhage. Calcium may be added to intravenous fluids in doses of $\frac{1}{2}$ - 1 gm. or if tolerated, may be given by mouth as calcium chloride, 3 gms. daily in formula.

As oral tolerance of feedings increases, of course, the parenteral fluids are decreased. In spite of all effort to balance intravenous feeding, prolonged use of such results in serious derangement and should be reduced as rapidly as possible.

During this acute period of a severe case, and at a corresponding period of any degree of diarrhea, effort should be made to isolate the etiologic agent of the diarrhea. Specific drug therapy should start as soon as possible. Penicillin is given most cases in an effort to control secondary infection present and assist in prophylaxis during the acute debility associated with the disease. If parenteral drugs must be depended upon, Streptomycin in 0.5 gm. daily doses may be given severely ill children. As soon as kidney function is established, sulfas may be started, preferably absorbable varieties with the triple sulfas likely less toxic. Sulfadiazine is the drug most nearly effective in Salmonella, Shigella, Proteus, Paracolon and Pseudomonas groups as a whole. If specific cultures are positive, then the agent of choice may be better determined.

Various of the newer antibiotics have shown effectiveness in the treatment of intestinal infections. In our practice we have seemed to see benefit in the use of Aureomycin and Terramycin in cases where we were unable to isolate a definite organism, and yet where we did not expect effect on a secondary systemic infection.

Also, the oral use of Neomycin and Neomycin and Bacitracin and Polymixin preparations has been purported to be of assistance in enteric infections. Their combination with nonspecific antidiarrheal drugs such as kaolin-pectin mixtures may result in the unnecessary use of antibiotics where the nonspecific therapy alone is sufficient. There is no reason to hope

that such combination will assist materially in handling of more severe cases.

Diagnosis and the treatment of other infections in the body are very important. Mild to severe infections may be found including ear, throat, lung and nervous system infections.

Vitamin supplements are needed as a result of the illness, fluid therapy, antibiotic treatment, etc.

During convalescence repeated check on the blood for anemia and further transfusion is often necessary.

A final emphasis should be made on two points. One is the search for other parenteral infection. This is very common and the diarrhea is frequently controlled with eradication of such a focus.

The other point is on the handling of a mild case of diarrhea:

- (1) Take the condition seriously.
- (2) Examine the infant.
- (3) Keep in contact with the progress of the case.
- (4) If unimproved after 24 hours—see and check:
 - a. Number and character of stools.

- b. Degree of dehydration.
- c. Fever.
- d. Prostration.
- e. Vomiting.
- f. Parenteral infection.

BIBLIOGRAPHY

- (1) Rubenstein, A. D., and Britten, S. A.: Epidemic Diarrhea of Infancy, *Journal of Pediatrics*, Vol. 38:457, 1951.
- (2) Plowright, Thomas R.: The Use of Carob Flour (Arobon) in a Controlled Series of Infant Diarrhea, *Journal of Pediatrics*, Vol. 39:16, 1951.
- (3) Andrews, Harry S.: The Use of Carob Flour in Gastro-Intestinal Disturbances, *Kentucky State Medical Journal*, July, 1951.
- (4) Kadison, E. R., and Barousky, M. P.: The Treatment of Infantile Diarrhea with a new Combination of Antibiotics, *Journal of Pediatrics*, Vol. 38:576, 1951.
- (5) Darrow, D. C.: Therapeutic Measures Promoting Recovery from the Physiologic Disturbances of Infantile Diarrhea, *Pediatrics*, Vol. 9, 1952.
- (6) Gamble, J. L.: Chemical Anatomy, Physiology and Pathology of Extracellular Fluid, Harvard University Press, 1949.
- (7) Modica, R. I., Ferguson, W. W., Ducey, E. F.: Epidemic Infantile Diarrhea Associated with *E. Coli* 111, B4, *Mich. J. Lab. & Clin. Med.* 29:122, Jan., 1952.
- (8) Lyon, H. B., Jr., and Rantz, Lowell A.: Staphylococcus Aureus in an Outbreak of Infantile Diarrhea, *Pediatrics*, 5:617, 1950.
- (9) Light, J. S., and Hodes, H. L.: Isolation from Cases of Infantile Diarrhea of a Filterable Agent Causing Diarrhea in Calves, *Journal Exper. Med.*, 90:113-36, October, 1949.
- (10) Florman, A. L., and Schifrin, N.: Observations on a Small Outbreak of Infantile Diarrhea Associated with *Pseudomonas Aeruginosa*, *Journal of Pediatrics*, Vol. 36:758-66, 1950.

Current Trends in Anesthesia and Their Relationship to the General Practitioner

LEWIS FRANCIS, M. D.

Lexington

The choice of anesthesia is unfortunately not as simple as "give them all gas and ether." Recent studies indicate that the death rate from anesthesia is higher than had ever been predicted previously. In approximately 500,000 anesthetics given in one hundred of the large university hospitals, the death rate has been shown to be one in 1,650, instead of one in 10,000 as had been the casual estimate that all have heard. There are eight times as many deaths attributable to anesthesia yearly as there are to poliomyelitis. Yet surprisingly little has been done to educate the medical profession to the dangers of various anesthetics and to use them wisely and cautiously.

During the past ten years the major advances in anesthesia have been more widespread use of endotracheal technique, increase in the popularity of pentothal sodium, use of the curare group of drugs

and the increased use of blood and blood substitutes, all coupled with the emergence of anesthesiology as a recognized, valuable, consultant specialty.

Only through these advances in anesthesiology have the recent tremendous increases of surgical progress been possible. The surgeon who has had the advantages of working with topnotch anesthesia management is most chagrined to return to that which he formerly considered adequate. The general practitioner anesthesiologist can do much to facilitate surgical progress in his community by not treating anesthesia as a necessary evil. Instead, by devoting attention to anesthesia and if necessary, by taking trips to medical centers for instruction, he will find that his anesthesia functions in his community are enjoyable and sought after.

The following paragraphs will review some of the basic aspects of the reasons.

for some phases of anesthesia:

Premedication

The functions of premedication are to:

1. Produce psychic sedation.
2. Obtain additive or synergistic effect between the drugs and the contemplated agents; for example, morphine and local anesthesia for analgesic synergism.
3. Reduce reflex irritability. Atropine is used to counteract vagal effects.
4. Suppress bronchial and salivary secretions.
5. Overcome undesirable side effects of the anesthetic agent. Barbiturates prevent the "caine" reaction to cocaine, "Pontocaine" and "Novocaine."

Premedicating drugs should be prescribed on the basis of 1:25 atropine to morphine, i. e. M. S. 1/6 to 1/150 atropine, M. S. 1/8 to atropine 1/200. In this way, the optimum effect of each is evident and the side effects are counteracted.

One fallacy perpetuated daily in surgery is that of the "On Call" order for premedication. The action of morphine is maximal in from 60 to 90 minutes after administration. That of atropine is about the same, usually shorter in onset but of longer duration. That of "Nembutal" is maximal in from 60 to 90 minutes after administration. Therefore, if the drugs are given as the patient leaves for surgery, the maximal effect is not felt until the patient is in surgery, and most likely as he is midway through the laparotomy. The drug order should be timed in such a way that the patient receives his barbiturate about 1½ hours preoperatively and his morphine and atropine about one hour preoperatively. By so doing he will have benefited as a result of having come to surgery calm, relaxed and without the danger of undergoing a sudden physiologic depression resulting from anesthetic agent depression plus premedicant drug depression after surgery has started.

Classifications of Anesthetic Agents

In reviewing the pharmacologic effects of the various agents, only the pertinent points will be covered. Reference to any of the standard texts on physiology will clarify the additional points if necessary.

The general anesthetic agents can be grouped into three main categories:

1. Parasympathetic in effect or having

some effects of the vagal type

Cyclopropane
Pentothal
Natural curare
Ethyl chloride
Avertin

Atropine in adequate dosage is very important in premedication.

2. Sympathetic in effect
Ether
Vinethene—(Di-Vinyl ether)
3. Those in which neither is particularly evident
Ethylene
Nitrous Oxide
Chloroform
Trichlorethylene (Trilene)

Anesthetics can also be grouped into:

1. Inhalation. 2. Nonvolatile. 3. Regional.

1. Inhalation agents have the primary advantage of being removable at will. If an overdose of an inhalation agent is given, it is easily removed by artificially respiring the patient by intermitted positive pressure of the anesthetic machine rebreathing bag until the agent is eliminated. This flushing out of the agent is not possible with any of the other agents and therein lies the margin of safety which these inhalation agents have. Individually, the inhalation agents have the following characteristics:

A. Nitrous Oxide N₂O. The most nearly perfect agent. In combination with physiologic percentages of oxygen, there are no undesirable effects from its administration. Its only fault, and that is a major one, is its lack of potency. Because of this, it is abused. In practice, it is possible to accomplish with 15% oxygen or with 10% oxygen, manipulations or other procedures that are not possible without this relative hypoxia. Therefore, since these diminished percentages of oxygen in the inspired air can produce irreparable brain damage, the anesthetic mixture must never contain less than 20% oxygen, or a flow of 4 liters of nitrous oxide and 1 liter of oxygen through the system. The flow should never be less than this for absolute safety of administration of these gases in combination.

Summarizing the characteristics of nitrous oxide we have—

1. Pleasant induction.
2. Non-explosive.
3. Induction and emergence are rapid.

4. Easily stored.
5. Stable.
6. Inexpensive.
7. No deleterious physiologic effects.
8. A lack of potency which limits its usefulness to procedures not requiring much depth of anesthesia or relaxation.

B. Ethylene. Essentially this gas presents the same advantages as nitrous oxide. In addition, it will produce anesthesia to the 2nd plane of the 3rd stage of surgical anesthesia. The great disadvantage of ethylene is its great explosive hazard resulting from the necessity of using large volumes of gas. Ethylene and nitrous oxide are used with the semi-closed technique, thereby spilling large volumes of gas into the operating room atmosphere. With nitrous oxide, this is of no consequence. With ethylene, this spillage of an explosive mixture results in a hazard, which may result in a fatal explosion at any time this gas is ignited by spark or flame.

C. Cyclopropane.

Advantages.

1. Wide margin of safety.
2. Induction pleasant and rapid.
3. Very labile, permitting rapid changes in level.

Disadvantages.

1. Highly explosive.
2. Increases cardiac irritability.
3. Oozing is more troublesome.
4. Frequently get laryngeal or bronchial spasm.
5. Increase in blood CO_2 tension during anesthesia may result in respiratory acidosis and in subsequent 'cyclo' shock.
6. Because of its non-irritating qualities, is easily mis-used and therefore is not safe in the hands of the inexperienced.

Cyclopropane when properly used is suitable for use in all phases of obstetrics and surgery.

D. Ethyl ether.

Advantages.

1. Wide margin of safety.
2. No circulatory depression until very deep anesthesia levels are reached.
3. Respiration is stimulated rather than depressed.

4. Safest of all of the very potent agents in the hands of the inexperienced.

5. Stable and easily stored.

6. Does not require complicated equipment for administration.

Disadvantages.

1. Induction is likely to be slow and unpleasant as is the recovery period.

2. Explosive.

3. Irritating to the respiratory tree.

4. Nausea and vomiting are frequent post-operatively.

E. Di-Vinyl ether (Vinethene)

Advantages are the same as ethyl ether plus the greater rapidity of induction and the more pleasant odor.

Disadvantages.

1. May get liver damage from prolonged administration.

2. Not as stable as ethyl ether.

3. Suitable for short procedures only because of 1 above.

4. Induction may be accompanied by profuse salivation.

5. May get convulsions during induction. The exact cause of these convulsions has not been found to date.

F. Chloroform.

Advantages.

1. Excellent relaxation.

2. Induction rapid and pleasant.

3. Not inflammable.

4. Simple equipment adequate for use.

5. Stable.

Disadvantages.

1. Profound myocardial depressant.

2. Arrhythmias are common.

3. Narrow margin of safety.

4. Hepatitis is common post-operatively. It has been estimated that this hepatitis may take six weeks to clear up following surgery.

It is generally considered that the toxic effects of chloroform are so profound (cardiac and hepatic) as to contraindicate its use.

G. Ethyl chloride.

Advantages.

1. Rapid induction and recovery.

2. Not unpleasant.

Disadvantages.

1. Very narrow margin of safety.
2. Explosive.
3. Causes profound myocardial depression and may result in ventricular fibrillation; therefore, its use is contraindicated.

H. Trichlorethylene (Trilene)

Advantages.

1. Potent analgesic.
2. Not inflammable in concentrations used for analgesia.
3. Not unpleasant.
4. Wide margin of safety when used only for analgesia.

Disadvantages.

1. Poor muscular relaxation.
2. May cause disturbances in cardiac rhythm if anesthesia is deepened to the level of surgical anesthesia.

Trilene is ideal for use in obstetrics, office urological procedures, simple orthopedic manipulations as well as reduction of simple, uncomplicated fractures, and in such surgical procedures as burn dressings, removal of packs or drains, and occasionally in the incision and drainage of boils. It must be remembered that it takes a few minutes for the onset of analgesia, and that the patient must be cautioned preoperatively that he will feel dizzy and light headed. The patient should be kept in the office for at least 30 minutes postoperatively until the effects of the drug are eliminated. He should be accompanied to his residence and must not be permitted to drive home.

2. Non-Volatile general anesthetics are usually given intravenously or rectally. The two most commonly used are Avertin and the barbiturates (usually sodium pentothal).

A. Avertin

Advantages.

1. Rapid and pleasant induction.
2. Allays preoperative apprehension.
3. Recovery gradual with frequent amnesia.

Disadvantages.

1. Not truly an anesthetic. No analgesia until profound depression occurs.
2. Once absorbed, the drug cannot be

recovered or eliminated, except by patient's own metabolic processes.

3. Respiratory depression and hypotension are frequent and may be profound.

4. Reflex activity is not depressed.

5. Chemically unstable.

Contraindicated in—

1. Shock.
2. Liver or kidney disease.
3. Toxemia or sepsis.
4. Pulmonary disease (because of diminished pulmonary exchange for prolonged periods).
5. Old age.

B. Barbiturates

These agents pose a particularly important problem in that the respiratory physiology is altered markedly after administration of anesthetic quantities of these drugs. The barbiturates depress the respiratory center, resulting in its being insensitive to the effect of CO_2 . The CO_2 tension in the blood is the driving force to the respiratory center and in the waking state initiates, by its varying concentrations, the respiratory cycle. The carotid body is sensitive only to varying concentrations of O_2 in the arterial blood. It is completely insensitive to CO_2 changes. After the depression of the respiratory center occurs, the respiratory cycle is sufficiently upset that hypoxia results. This hypoxia stimulates the carotid body to send impulses to the respiratory center. These impulses result in the respiratory center again initiating the respiratory cycle but mediated through O_2 diminution via the carotid body rather than through the effects of CO_2 change. Therefore, it is important that assisted respirations be used when giving pentothal anesthesia, and it is important to determine the adequacy of respiratory exchange when oxygen is given to the patient depressed from barbiturates. In the presence of a sudden increase in oxygen concentration in the arterial blood, the carotid body no longer sends impulses to the respiratory center, the drive to respiration is no longer present and respiration may cease for a long enough period that death may ensue.

Advantages of the barbiturates.

1. Natural type sleep results.
2. Induction is rapid.
3. Non-irritating to the bronchial tree.

4. Non-explosive.

Disadvantages.

1. The barbiturates are not analgesic and they should always be supplemented with an analgesic gas when surgery is performed.
 2. May cause severe respiratory depression. Always give a small amount of the drug as a test dose before continuing with the anesthesia.
 3. Not controllable. Once given one cannot recover the drug and must await the patient's metabolic elimination before recovery occurs.
 4. All reflexes are not abolished. Severe bronchospasm and/or laryngospasm may occur.
 5. Poor muscular relaxation.
 6. Solutions are alkaline at about pH 10.3 and may cause a slough if deposited extravascularly.
 7. Pentothal is "fatally easy to give." Very easy to administer an overdose.
3. Regional anesthesia when used wisely is perhaps the safest of all of the methods of producing anesthesia. Nerve blocks and regional field infiltration are familiar to all. All physicians are familiar with the 'caine' type of reactions. It is not so widely known that almost all of the untoward effects of the caine derivatives can be prevented by the preoperative administration of adequate doses of barbiturates. It is imperative that all patients having any form of local anesthesia be premedicated with barbiturates in the same dose that one would give to produce sedation in the same patient. The following doses of drug should not be exceeded:

Procaine 1 Gm per hour

Pontocaine 100 mgm per hour

Cocaine 200 mgm per hour

For spinal anesthesia, the following concentration should not be exceeded:

Procaine 150 mgm (as a 5% solution)

Pontocaine 12 mgm (as a .5% solution)

The advantages of spinal anesthesia are—

1. Excellent muscle relaxation
2. No significant blood chemistry changes
3. Suitable where inhalation anesthesia is contraindicated (usually)
4. Non explosive

Disadvantages:

1. Non-controllable. Once it has been

given, there is no recovering it or stopping the anesthetic until the patient metabolizes the drug.

2. Failure of block cannot be excluded.
3. Suitable for surgery below the diaphragm only.
4. Distressing circulatory changes occur frequently. Therefore, some one must be trained to watch for and to treat these circulatory changes.
5. May cause neurological complications. Estimated as 1 in 50,000 spinal anesthetics administered.

Contraindicated in—

1. Extremely apprehensive patients.
2. Shock.
3. Sepsis of peri-spinal tissues.
4. Severe hypertension.
5. Absence of a person trained to care for the patient at all times while under the anesthetic.

Curare

The curariform drugs are not anesthetic. They produce only muscular relaxation. The muscles supplied by the cranial nerves are paralyzed first, then the skeletal musculature, and finally the diaphragm is affected. The natural plant derivatives may cause a histamine response with hypotension, bronchospasm, and laryngospasm. The synthetics do not cause these histamine types of reactions and have replaced the natural d-tubocurarine preparations in many situations. *Curare should never be given unless one has immediately at hand the equipment for artificial respiration, endotracheal tubes and fittings, and the knowledge of use of the equipment.*

Gastric Content

In conclusion, it is well to remember that one cannot time anesthesia as being safe at any particular interval from the last meal. If a child eats and hurts himself within two or three hours after the meal, his digestion stops and he will not empty his stomach until many hours after the injury. It is a fallacy to wait for four hours and declare his stomach empty. One should either force the stomach to empty by inducing vomiting with a gastric tube or gagging with a tongue depressor, or surgery should be postponed for 10 to 12 hours. The woman in labor will stop digestion several hours before she knows she is in labor. She should have regional

anesthesia if there is any question about the relationship of meals to the onset of labor. When in doubt, do not induce anesthesia, induce vomiting and thus be sure the patient does not asphyxiate as a result of optimism about gastric content.

Summary

1. A short review of pharmacology of the commonly used anesthetic agents has been presented.

2. Some of the dangers of anesthetic practices have been described.

3. It has been suggested that the general practitioner, through increasing skill in anesthesia, may assume a more helpful and enviable position in his community medical affairs.

4. Some of the lesser known facts regarding the anesthesia death rate have been enumerated.

REFERENCES

1. Beecher, H. K. Michigan General Hospital News, Oct. 1952.
2. Anesthesia in General Practice, Stuart Cullen, Year Book Publishers.

Management of Essential Hypertension

WILFRID C. GETTELFINGER, M.D.

Louisville

An effort will be made to evaluate briefly the volume of advertising, detailing and literature that floods our desks daily concerning the new drugs in the treatment of the most common chronic disease seen in our practice today. Essential hypertension has been estimated to be found in 25 per cent of the adult population of the United States. If a level of 150 systolic and 100 diastolic pressure is used as the upper limit of normal, a third of the men and two-fifths of the women over forty years of age, and over half the men over sixty and women over fifty will have hypertension.

The mechanism of essential hypertension is increased resistance to the blood flow through arterioles. Probably several factors play a part in producing the more or less constantly constricted state of the arterioles throughout the body. Nervous, toxic, hormonal, and emotional factors seem to be the causative agents. The cause for this disease remains unknown, but hopeful, intensive investigations are continuing.

To digress a bit, the systolic hypertension, without diastolic blood pressure elevation, seen in arteriosclerosis of the larger arteries especially in older people, heart block, aortic insufficiency, hyperthyroidism and arteriovenous shunts are not to be discussed. These are largely compensatory physiological processes.

The systolic and diastolic elevation of blood pressure seen in acute and chronic glomerulonephritis, pyelonephritis, tox-

emia of pregnancy, pheochromocytoma and unilateral kidney disease will not be discussed to any extent, yet some of the drugs have great usefulness either in treatment or diagnosis of some of these disorders.

The problem which one must decide first is which patients not to treat. Here, especially, one must guard against over-treatment with dietary restriction, limitation of physical activity, creation of anxiety and use of drugs. There is naturally a great difference of opinion on this. It varies from those who feel that nearly all patients should have rather intensive treatment to a good friend of mine, who is a surgeon, and tells me that when he finds a patient in his office with high blood pressure, he states to them that if he himself had it he would go home and forget it and "that is what I advise you to do." Meilman believes that it is easier to select patients who should not be treated with drugs now available. He states that elderly patients with hypertension of 15 or more years duration with no evidence of hypertensive disease except moderate enlargement of the left ventricle need no dietary restrictions or drugs. Patients, especially those over sixty, with high systolic pressures but diastolic levels of 100 or less usually need no drugs. For persons in their twenties with no signs or symptoms other than moderately elevated blood pressure he advises only supportive psychotherapy.

Physical activity need not be restricted

to a great extent. It is important to avoid undue fatigue. A calm, serene attitude with avoidance of emotional upsets should be cultivated by the hypertensive. Psychiatric studies indicate neurotic tendencies in many hypertensives but control studies on supposedly normal people, so far as I know, have not been made. Psychiatric treatment does not alter the progress of hypertension but none the less, it is indicated in selected cases where emotional conflicts are present. Suitable hobbies should be pursued. Restful vacations are helpful. The use of tobacco and alcohol in moderation may be permitted.

Diets

If the patient is overweight, he should reduce and keep his weight normal. The only other dietary management necessary is the low sodium diet in selected cases. Sodium restriction rigidly controlled helps about 25 per cent. It is doubtful if diets containing more than 500 milligrams of sodium reduce arterial pressure. The rice, fruit, and sugar diet is an extreme example of a low sodium diet containing 200 mg. or less of sodium. Modifications of this diet with greater food selections are available. Its main use is in the treatment of malignant hypertension. Lowering of the blood pressure will usually occur in two or three months if at all. Patients must be observed for low-sodium syndromes especially if renal disease is present.

Drugs

In addition to patients who require no treatment, many can be managed by a close doctor-patient relationship, reassurance and mild sedation with barbiturates. Phenobarbital or a similar barbiturate is still a very satisfactory, economical and useful drug in the treatment of hypertension.

Potassium thiocyanate is useful in relieving hypertensive headaches, vertigo and tinnitus. Its dosage can be controlled by blood determinations. This is absolutely essential to determine dosage so that toxic effects can be avoided. Safe blood concentrations range from 8 to 12 mg. per 100 cc. Salicylates and other medication may interfere with determinations of the blood thiocyanate level and should not be used during thiocyanate treatment. Hines points out untoward side effects of nausea, vomiting, weakness, mental dis-

turbances, purpura, dermatitis, goiter with hypothyroidism and development of osteoporosis. There are some contraindications which one should know and special caution must be used in patients over sixty and in certain other situations.

Sodium nitroprusside has been used by Page with results very similar to those of the cyanates, but there seem to be additional effects. Further investigation should be noted.

Veratrum alkaloids are hypotensive alkaloidal esters obtained from the roots of veratrum plants. "Vertavis," "Veratrite" and "Veriloid" come from veratrum viride. Veriloid contains all the alkaloidal esters of veratrum viride and its potency is expressed in milligrams. It is given in a usual total daily dosage of 8 to 20 mg. It is also available for intravenous and intramuscular use. Veriloid is of central neurogenic vasodilator effect and does not produce ganglionic or adrenergic blocking. Side effects may be salivation, nausea, and vomiting, which are not dangerous though unpleasant.

Protoveratrine A and B are crystalline ester alkaloids extracted from the roots of veratrum album. Their advantage is said to be a more constant potency, because the standardization is by chemical instead of biological assay, facilitating accurate adjustment of dosage. Nausea and vomiting at effective therapeutic levels may be less with ester alkaloids from veratrum album than from veratrum viride. Detailed dosage schedules are supplied and vary from 0.4 mg. to 1.5 mg. Overdosage producing substernal pain, bradycardia and arrhythmia is relieved by intravenous atropine sulphate, 0.5 to 1 mg. (1/128 to 1/64 gr.) Sudden excessive hypotension with collapse is best treated with ephedrine sulphate (30 to 45 mg.) or phenylephrine hydrochloride (5 mg.) subcutaneously.

"Rauwiloid" is an alkaloidal extract obtained chiefly in India from a tropical plant, Rauwolfia serpentina. It lowers blood pressure through central action. It has been advised to give a single dose of 4 mg. daily at night. Usually after one or two months a maintenance dosage of 2 mg. daily can be instituted. It is supplied in tablets containing 2 mg. of alkaloids. "Raudixin" is prepared from the powdered whole root of Rauwolfia serpentina. It is available in a 50 mg. tablet. These products produce few side effects and none

serious. Bradycardia, nasal congestion, sedation and a tendency to gain weight are mentioned. A probable synergistic effect in combination with veratrum preparations and hydrazinophthalazine is apparent.

Methonium compounds are the most powerful hypotensive drugs available. The bromide seems most used subcutaneously. The chloride is best suited for oral administration and may be used parenterally also. It produces a "medical sympathectomy" by blocking the autonomic nervous system at the ganglia. It also blocks the parasympathetic ganglia. Whether given orally or parenterally the patient should be in a hospital under constant observation when treatment is started. The physician and the patient must be thoroughly familiar with its actions and dangers. A marked fall in blood pressure in the erect position with weakness, dizziness and faintness is often seen. Inhibition of intestinal motility causes constipation and paralytic ileus has been reported. Urinary retention and other side effects may occur. Kvale uses Hexamethonium bromide subcutaneously only, because of more constant effect than in oral administration. The hypotensive action lasts 4 to 8 hours. The dose varies with individuals and tolerance develops. By subcutaneous injection the drug is given every 8 to 12 hours. Patients have been taught to check their blood pressure and to administer the injection. In malignant hypertension and severe hypertension not responding to other forms of treatment these drugs may find their greatest use. It should be mentioned that poor renal function is affected adversely. The bromide and chloride are available in 10 cc. vials. Each cc. contains 25 mg. of the hexamethonium ion. Hexamethonium chloride is also available in 250 mg. and 500 mg. tablets. Dosage schedules must be known fully and are variable. Schroeder has a detailed outline of instructions to physicians and one to patients in the use of hydrazinophthalazine plus hexamethonium chloride (Hyphex treatment) which he uses.

1-Hydrazinophthalazine is available in 25 mg. and 50 mg. tablets and 1 cc. ampules (20 mg. per cc.) under the trade name, Apresoline. It is supposed to antagonize such humoral pressor substances as hypertensin, serotonin, pherentasin and norepinephrine. It is considered of mod-

erate potency. Palpitation, headache, tremor and anxiety have been the most common side effects. These usually disappear with continued medication. Dosage must be individualized starting with 10 mg. after meals and at bedtime. By the end of the first week 25 mg. four times daily is given. Some patients need no more than this, while others require 200 mg. or more in four equal doses.

Phenoxybenzamine hydrochloride (Dibenzyl) is a new long-acting adrenergic blocking agent which can produce and maintain "chemical sympathectomy" by oral administration. It is indicated in the treatment of hypertension due to pheochromocytoma. Side effects of nasal congestion, miosis, postural hypotension and tachycardia may occur. Caution must be used if cerebral arteriosclerosis or renal damage is present. It is available in 10 mgm. capsules and the usual initial dose is 10 mgm. three times daily.

Piperoxan Hydrochloride (Benodaine) is a valuable agent for diagnosing pheochromocytomas as the cause of hypertension. A significant fall of blood pressure usually occurs within a few seconds to four minutes returning to pre-injection levels in about 15 minutes. It is supplied in a 10 c.c. ampul containing 20 mg. of Benodaine hydrochloride for intravenous use. Complete directions for use accompany each ampul.

Two of the dihydrogenated ergot alkaloids are DHO and Hydergine. The mode of action of this group is thought to be central and peripheral with inhibition of the vasomotor center coupled with adrenergic blockade. In prolonged use tolerance develops. Hydergine can be used intravenously, intramuscularly or subcutaneously. In hypertensives the intramuscular route is preferable. It is supplied in 1cc. ampules containing 0.3 mgm. Hydergine with detailed instructions for usage.

Page is impressed with the use of Pyromen to produce fever four or more times a week in patients with malignant hypertension. The treatment is harsh, being long and difficult to administer. Further evaluation of this method is thought necessary before final judgment is made.

Surgery

Allen sent a questionnaire to a group of experienced surgeons and internists in this field for opinions concerning sym-

pathectomy. Widely divergent views and disagreements are noted in their answers. It seems unlikely that a resolution of these conflicts will be made in the near future. He feels that sympathectomy is not a good method of treating hypertension, but that many patients are benefited. According to him there is still no method of selecting patients so that only those will be operated on who will be benefited. If an adequate period of medical treatment fails, sympathectomy must be considered.

Summary

A brief survey of the treatment of essential hypertension has been made. None of the material is original. My own experience is indeed limited with many of the new drugs. New methods are now available and it is necessary for us to become familiar with them. The last words I would leave with you were spoken a couple of centuries ago by Alexander Pope: "Be not the first by whom the new is tried. Nor yet the last to lay the old aside."

The Urethra of Woman

ROBERT LICH, Jr., M.D.*

Louisville

"There's hardly anything so small,
So trifling or so mean,"¹

The female urethra in spite of its relative external location and scant one and three-eighths inch length presents to the urologist and practitioner a most perplexing problem. The reason for this is somewhat more apparent when one recalls that the female urethra is homologous to the prostatic urethra. The prostatic urethra when infected is still a major therapeutic consideration even today with all of our antibiotics, sulfonamides and greater dexterity with endoscopic procedures.

The urethra is a fibro-muscular tube which is easily palpated per vaginum as a cord-like structure. Its mucosa is composed of squamous epithelium. The distal end of the urethra contains many small scattered glands. These are both simple and complex racemose glands. The glands of Skene are the counterpart of the bulbo-urethral glands in the male. In the proximal third of the urethra the tubuloglandular areas may persist, rather than disappear, during fetal life. The fact that these glands are prostatic homologues is substantiated by finding concretions harbored in these glands which resemble those of the prostate. The clinically im-

portant feature is that these peri- and para-urethral glands once infected may continue to keep the urethra infected and continue re-infecting the urine with a persistence of symptoms.

Disturbances of the urethra may be classified as follows:

- I. Anomalies
- II. Injuries
- III. Inflammations
 1. Urethritis
 2. Stricture
 3. Prolapse
 4. Diverticula
- IV. Tumors
- V. Neuroses

Anomalies

The urethra being homologous to the posterior urethra of the male shows few malformations. Only a few cases of absence, duplication or bifurcation have been reported.

Epispadias may occur as a partial or total defect. Most instances of partial epispadias go unnoticed and only when sphincteric function is disturbed and a complete epispadias exists does the anomaly attract attention. Epispadias in the female is a rare occurrence as compared to the male in which the incidence is less than one-fifteenth that of hypospadias.

"Hypospadias" in the female or vaginal urethra, wherein the urethral meatus lies

*Clinical Professor and Head of the Section on Urology, Department of Surgery, University of Louisville School of Medicine.

Read before the Post Graduate Program of the Academy of General Practice and University of Louisville School of Medicine at DuPont Lodge, Cumberland Falls, Kentucky, on May 27, 1953.

1 Ann Taylor: The Pin Stanza 6.

above the hymen, is even more rare than epispadias. The more severe degrees of this malformation are associated with vaginal anomalies.

Injuries

These conditions are most commonly surgical or traumatic and associated with parturition.

Inflammations

The urethra is the portal of entry for urinary infections and four clinical types have been described: 1) urethritis, 2) instrumentation, 3) cohabitation "honeymoon cystitis" and 4) spontaneous ascension.

Acute urethritis has become relatively rare with the passing of gonorrhea from the immediate horizon by virtue of the sulfonamides and antibiotics. This condition needs no discussion other than to say that penicillin in large doses is curative.

Chronic urethritis of non-specific origin is a most common and troublesome condition. The symptoms are those of painful urination during the act or at its termination and a variable degree of urinary frequency with the sensation, on occasion, of persistent moisture at the urethral meatus. The symptoms may be most protean and any symptoms without explanation occurring between the perineum and umbilicus must be regarded as potentially of urethral origin. The history of these patients is characteristically negative with no previous illness or disability and the general health excellent except for the recurrent episodes of urethral discomfort. Nervousness is to be expected and is the result rather than the cause.

The diagnosis is established by finding the bladder and upper urinary tract free of pathology and observing the presence of chronic inflammatory lesions in the urethra. At the time of attempted cystoscopic examination there may be found urethral narrowing. These strictured areas are usually of spastic origin and require gentle dilatation before instrumentation.

Treatment of this condition is trying to both the patient and doctor and severely tests the patient's confidence. Urethral dilatation executed with extreme gentleness to afford drainage of the infected urethral glands is fundamental therapy. The granular or polypoid areas in the

urethra are best destroyed by mild fulguration under general anesthesia. The urethra may thereafter be chemically cauterized with 5 to 10 per cent silver nitrate through the Kelly endoscope taking particular care, in applying the proximal urethra, not to permit the silver solution to run down upon the trigone and thus cause a chemical trigonitis and greatly increase the patient's discomfort. The instillation of cod liver oil (1 ounce) into the bladder by injection through the urethra is found soothing. (Cod liver oil is self sterilizing.)

The local therapy is fortified by such medication as sandal wood oil, antispasmodics and sedation. The following is a useful prescription for oral use:

Potassium acetate	Oz. 1
Tincture hyoscyami	Oz. 1½
Elix. saw Palmetto et Santalwood	Oz. 2
Elix. Phenobarbital qs ad	Oz. 6
Sig: Drachm 2 q. i. d	

Rest is essential for these patients and activity of great nervous or mental strain is to be strictly avoided. Hot sitz baths are often useful during acute symptomatic episodes. Diet, except in specific allergies, is not significant although carbonated drinks, spices and condiments often accentuate the symptoms.

The symptoms of urethritis are often seemingly endless with or without intermittent interruptions by asymptomatic periods. The patient and doctor may question the utility of their efforts. Certainly persistence is the only solution and the doctor is obliged to encourage the patient who understandably finds her malady an unreasonable burden which affords little external evidence of its agonizing proportions.

Strictures are secondary to prolonged urethral infection with eventual scarring and contracture. The stricture may be single or multiple and there is no single area in the urethra that has a predilection for their formation except possibly the meatus.

The symptoms are those of the underlying urethritis and/or reduced urinary flow. The patient may complain only that her act of voiding "takes forever." On the other hand, the patient may realize her languid urination only after the stricture has been relieved.

Diagnosis is established only by routine-

ly calibrating the patient's urethra. The normal female urethra should tolerate a 28 F. sound with only minimal discomfort. If the urethra is found smaller than 28 F. a series of gradual and gentle dilations must be initiated at weekly intervals. Small doses of sulfonamides or antibiotics are useful in preventing bladder infection which may result from instrumentation.

The most common urethral stricture is that of the meatus and is common in both child and adult. A urethral meatal stricture is the most common cause of recurrent urinary tract infection and is associated primarily with dysuria and intermittent pyuria. A meatal stricture is diagnosed by introducing (in the adult) a 28 F. sound into the urethra and noting as it is withdrawn whether there appears a thin rim of white, avascular, compressed, urethral meatal tissue which grasps the sound. This is diagnostic of clinically significant meatal narrowing.

A stricture of this type is easily relieved by infiltrating with 1 per cent procaine the lower portion of the urethral meatus and extending the anesthetic along the urethra for about three-eighths of an inch. A hemostat is then placed as shown in the accompanying illustration (Figure 1) and clamped. This compresses a thin

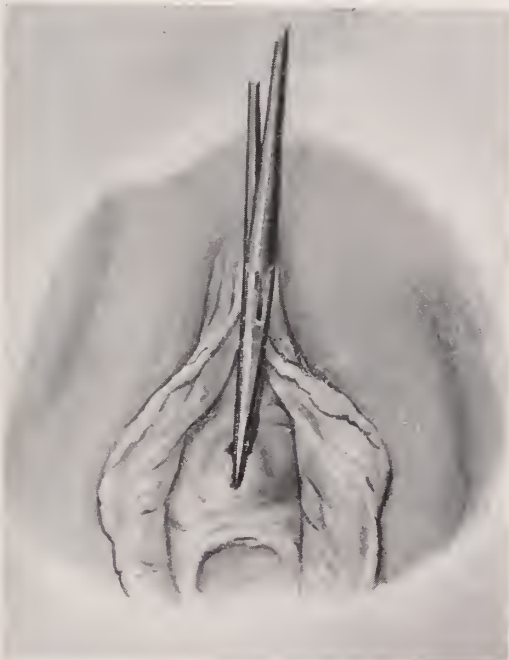


FIGURE 1

Method of applying clamp in executing a meatotomy of the female urethra.

line of tissue on the posterior aspect of the urethra and by leaving the clamp in position for several minutes this crushed tissue may be divided without bleeding. The incision should be made so that a 30 F. sound enters the urethra without difficulty. Following meatotomy the urethra must be dilated at weekly intervals until healing is complete and the final urethral caliber of 28 F. is permanently established.

Urethral prolapse in the female occurs most commonly in the two extremes of life. The prolapse of the urethra may incite concern only because of its appearance or it may be sufficiently pronounced to cause some degree of urethral obstruction. Occasionally there may be associated pain and considerable discharge. The diagnosis is readily established by observation and palpation since one finds a complete cuff of urethra extending beyond the normal urethral meatus.

The treatment is surgical excision or, in some instances, ligation of the redundant tissue about a catheter. In surgical excision the entire urethral cuff must be excised and the mucocutaneous edges approximated with fine catgut sutures. If the method of ligation is chosen a catheter of 22 or 24 F. caliber is introduced into the bladder and slowly withdrawn until the entire redundant urethral mucosa is exteriorized. A fine silk suture is then tied tightly about the meatal area so that the mucosal cuff is strangulated between the ligature and catheter. The catheter is left in the bladder for three days at which time the urethral cuff is found detached and the catheter is then withdrawn. This is a simple, but useful procedure.

Diverticula of the urethra are not nearly as uncommon as one is usually led to believe. They occur most frequently in the multiparous woman, but we have found several in the nulliparous. This lesion can occur at any time in life though it is more common after fifty and extremely rare before the age of 20 years.

The diverticulum most often, if producing symptoms, is infected and may be the source of chronic urethritis, but in our experience the most common complaint is that of a suddenly developing dyspareunia. Often the diagnosis can be made endoscopically by seeing the opening of the diverticulum and confirming this further with a urethrogram. Not infrequently

the opening of the diverticulum is so small that endoscopy and urethrography are of no avail. It is seldom that the tender urethral mass can not be felt vaginally usually in the most proximal portion of the urethra. The retained products within the diverticulum can be seen oozing from the urethral meatus when the diverticulum is compressed by the examining finger.

The only successful treatment of a urethral diverticulum is surgical excision and plastic repair of the urethra. The possibility of multiplicity of these lesions must be remembered at the time of surgery.

Tumors

The caruncle is the most common benign tumor of the female urethra. It is found in both the married and unmarried, the multiparous and nulliparous and more frequently after the age of fifty years. Since the tumor appears always on the posterior lip of the urethral meatus and since there is some glandular structure in many of these tumors it is thought that the glands of Skene may be important in their formation. Histologically the tumor is composed of a mass of capillaries with interstitial fibrous tissue. It is often considered as a "urethral hemorrhoid."

The symptoms may be those of extreme tenderness and/or bleeding and dysuria. Here again, as with urethral prolapse, the discovery of this mass by the patient is the most disturbing factor.

Treatment consists of fulguration and destruction of the entire base of the tumor to prevent recurrence. In the sessile type it is sometimes more advisable to excise the mass surgically and thereafter repair the meatus. In the pedunculated type the mass can be excised after a clamp is placed across the pedicle which in turn is destroyed by touching the clamp with

the fulgurating electrode. The possibility of malignant change makes it wise always to send the tissue for histological study.

Malignant tumors of the urethra (carcinoma and sarcoma) are extremely rare.

Neuroses

Neuroses of the urethra have purposely been left for last since this is not a diagnosis that should be entertained lightly. It may be considered only when there is no evidence of urinary tract disease and no pelvic pathology which may account for a secondary disturbance of the urethra. This diagnosis must never be made in the presence of abnormal elements in the urine and the possibility of a very early tuberculosis must always be considered along with such neurological disturbances as *tabes dorsalis*, multiple sclerosis, syringomyelia or other degenerative diseases.

In general in these patients, symptoms of dysuria, frequency and urgency are characteristically present only during their waking hours and there is no nocturia. In addition these patients often complain of periodic difficulty in voiding or "stammering of the bladder." There are of course other general manifestations that would point to the probability of neurosis.

The treatment is principally psychiatric and should be made available to these unfortunate women as early as possible in the course of their disease.

Summary

The subject of urethral pathology in the female has been presented most sketchily with the purpose of bringing to your attention the importance of the female urethra as a cause of much misery and emphasizing the therapeutic difficulties encountered in affording these patients the relief they so desperately seek.

The United Mine Workers Welfare and Retirement Fund's annual report for 1952 shows that medical and hospital care expenses amounted to \$56,444,000, the second largest portion of its expenditures, 79 per cent of which was used for working miners and their families. The report emphasized state and local medical society cooperation, saying that the group's medical program is organized on the principle that the responsibility must rest entirely in medical hands.

In order to free young medical Naval Officers from the feeling that they are captives, the Navy has announced a new release policy from active service, which is aimed at making a career in Navy medicine more attractive. Resignations will be accepted from medical officers who are initially appointed lieutenants (j.g.) or lieutenants on or after August 7, 1953. They must then serve in the regular component of their corps on active duty for four years.

The Shoulder-Hand Syndrome

GEORGE S. DOZIER, M.D.*

Louisville

The term shoulder-hand syndrome was first used by Askey,¹ in 1941, to indicate a distinct clinical entity when he reported on a group of cases which developed a painful disability of the shoulder and hand following coronary occlusions. His clinical description of the syndrome, and his interpretation of the underlying etiological mechanism at that time are essentially the same as described by authors on the subject within the last four years.

The shoulder-hand syndrome is by no means a new disease; but, it certainly may be considered a relatively newly recognized disease. Prior to 1941 a wide variety of seemingly unrelated clinical disorders, usually considered distinct entities, were described in the medical and surgical literature. The current concept is that many of these previously described disorders have a similar underlying etiological mechanism; and, when certain of these previously considered distinct clinical entities involving an upper extremity appear together, the shoulder-hand syndrome can be recognized.

Realizing that briefly the shoulder-hand syndrome is a neurovascular disorder characterized by a painful stiff shoulder and by swelling, atrophy, and stiffness of a hand, it is important that a brief review of the literature concerning several of these seemingly unrelated disorders be presented prior to a detailed analysis of the syndrome.

Review of Literature

In 1900, Sudeck² described a syndrome that developed in an extremity following minor injuries. At first, there was a burning persistent pain which was out of proportion to the original trauma, and there was edema of subcutaneous tissues with increased warmth of the extremity. Later, this syndrome resolved into a hard, cold, cyanotic, stiff extremity in varying degrees. In addition to these findings, he

noted that roentgen ray studies of the bones of the extremity revealed a spotty osteoporosis which appeared 4 to 8 weeks following the original injury. This was before the osteoporosis of disuse was expected to occur. This syndrome has been known for many years as Sudeck's atrophy; but, it has also been designated under a variety of other names, such as, acute atrophy of bone, traumatic angiospasm, chronic traumatic edema, peripheral trophoneurosis, posttraumatic osteoporosis, and reflex nervous dystrophy. The varied terminology generally depended upon whether the author's attention was focused upon the different manifestations of the same syndrome in the bone, in the vessels, or in the nerves. Homens³ has described a similar syndrome which he had termed an hyperesthetic neurovascular syndrome or a minor causalgia.

Accumulated neurological knowledge of sympathetic reflex mechanisms since 1900, and the experimental evidence of deTakats⁴, in 1937, show that the above described syndrome is the result of a reflex mechanism causing a prolonged hyperemia to the affected extremity.

Howard,⁵ in 1930, Edeiken,⁶ in 1936, Boas,⁷ in 1937, Leech,⁸ in 1938, and Erdstene,⁹ in 1940, reported on cases which developed persistent shoulder pain following myocardial infarction. In these reports the painful condition of the shoulder was often referred to as a "periarthrititis;" and, it was suggested that the shoulder disability may result from referred anginal pain and from voluntary or involuntary splinting of the shoulder. The latter author also noted changes in the hands of several of his cases of postinfarctional shoulder pain. He regarded the changes as being due to rheumatoid arthritis involving the fingers.

Coventry,²⁵ in 1953, recognizing that shoulder pain can be produced by numerous conditions, both locally and reflexly, stressed the dual role of disuse and the so-called periartritic personality in producing periartthritis and its subsequent protracted pain and stiffness. The periartritic personality is said to occur often in the nervous, passive-dependent type of person. He also states that occasionally the

Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are a result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

From the Medical Service of the Veterans Administration Hospital, Louisville, Kentucky, and the Department of

*Resident in Medicine, V. A. Hospital, Louisville, Ky., and Assistant in Medicine, University of Louisville School of Medicine.

hand may develop painful and trophic changes under such circumstances.

Oppenheimer,¹⁰ in 1938, reported on a series of cases that combined the features of swelling, atrophy, and aching pain in one hand. Later, roentgen ray examination of the hands revealed rarefaction of the bones. This was noted to be more marked in the carpal bones. For the most part, in this series of cases, there was no substantial history of trauma. With cervical vertebrae roentgen ray films to substantiate his belief, Oppenheimer placed the primary cause of this condition on pronounced narrowing of one or two intervertebral foramina of the upper cervical spine. He postulated that the syndrome was a trophic disorder caused by pressure upon cervical nerve roots within the intervertebral foramina.

Johnson,¹¹ in 1943, reported on a series of cases that developed pain, symmetrical swelling, and stiffness in the hands 3 to 16 weeks following acute myocardial infarctions. His series also revealed marked decalcification of the bones of the hands. He suggested the etiology of this syndrome to be due to anoxia of the tissues of the hand produced chiefly by ischemia resulting from reflex vasoconstriction of the arteries of the hand induced by cardiac pain. Here he differed from deTakats¹ who had the exact opposite view in that his experimental evidence showed it to be due to hyperemia. Johnson proposed the term postinfarction sclerodactylia for the syndrome; but, he pointed out that he believed many cases showing this syndrome were classified as rheumatoid arthritis, atrophic arthritis, atypical arthritis, and causalgia.

Reports of Dupuytren's contracture in association with disease of the coronary arteries have been infrequent. Askey¹ in reviewing his series of cases which developed a painful disability of the shoulder and hand following coronary occlusions suggested the possible relationship of changes in the palmar aponeurosis and myocardial infarction. Kehl,¹² in 1943, reported on a small series of cases that developed pain, swelling, stiffness, and discoloration in one or both hands following myocardial infarction by 3 to 11 months, which gradually developed palmar fascial changes that closely resembled Dupuytren's contractures. Powers,¹³ in 1934, in a report explained the palmar phenomenon on the basis of irritation and hyperexcitability of the sympathetics due to

visceral disease. He indicated that the visceral disease is frequently intrathoracic.

Evans,¹⁴ in 1946, having recognized the similarity between many of the above mentioned previously believed distinct clinical entities, and having borrowed from the neurological theories of deNo¹⁵ and Livingston¹⁶ classified most of the disorders under the term reflex sympathetic dystrophy.

Steinbrocker,¹⁷ in 1948, while reporting on reflex sympathetic dystrophy of the upper extremity, divided it into two clinical forms. These are:

1. Incomplete or abortive reflex sympathetic dystrophy, such as
 - a. Swelling and atrophy of the hand,
 - b. Painful vasospasm or vasodilatation of the hand,
 - c. Painful disability of the shoulder, and
 - d. Contractures of the palmar fascia and Dupuytren-like contractures.
2. Complete reflex sympathetic dystrophy. This clinical form in its entirety is the shoulder-hand syndrome as it is recognized today.

Clinical Features

Recent investigators of the shoulder-hand syndrome recognize that if this condition runs its full course it generally passes through 3 stages or phases. Usually, in passing through the stages, the signs in each resemble different diseases. Sometimes overlapping of symptoms is observed in the various stages; and, the duration of the stages may vary from case to case.

First Stage: The first stage is generally said to begin from 3 weeks to 12 weeks following a primary stimulating disease. Askey¹ reports the onset in some cases to coincide with coronary occlusions. However, in one of his cases the syndrome began 7 months after a coronary occlusion.

The first stage usually lasts from 3 months to 6 months. This consists ordinarily of the appearance of a painful shoulder disability followed by swelling, pain, and stiffness of the hand and fingers. The onset may be gradual or sudden. Complaints may arise first either at the hand or shoulder followed by symptoms at the other location, or both parts may be affected simultaneously. In Askey's se-

ries, the shoulder pain presented itself first in about 75% of the cases. He pointed out that there may be an interval between the shoulder and hand pain of 1 to 4 months. According to Hilker,¹⁸ in 1949, there is no predilection for involvement of either upper extremity. He points out that either the left or right upper extremity or both may become involved. Occasionally, one shoulder and both hands, or both shoulders and one hand are affected.

The shoulder pain and stiffness generally prevents abduction and external rotation. There is generally diffuse tenderness in the shoulder region.

The swelling of the hand and fingers is uniformly distributed; and, the swelling rarely will pit to pressure. The skin of the hand and fingers becomes smooth and taut. The normal wrinkles become shallow or obliterated. At first, the color of the affected hand may be a dusky pink or red. Later, the swollen tissue generally becomes pale or cyanotic. The mobility in the finger joints becomes limited; and, the grip becomes weak. There is usually pain on motion at these articulations.

Second Stage: The second stage also lasts from 3 to 6 months. It is generally characterized by gradual relief of pain and subsidence of swelling. However, the stiffness may become more pronounced; and, flexion deformities usually begin to appear. Atrophy of the subcutaneous tissue and the intrinsic muscles of the hand may become apparent. The cutaneous temperature, which was previously elevated, begins to fall. Rolling up of localized areas of the palmar fascia may become noticeable; or, early signs of Dupuytren-like contractures may appear. Roentgen ray films of the hand and shoulder at this stage may reveal a patchy osteoporosis or Sudeck's atrophy.

Third Stage: The third stage generally lasts for months; but, usually it goes to irreversible alterations. This stage is an advancement of the second stage. There may be marked stiffness in the shoulder. The hand becomes cold, hard, and stiff. A hypertrichosis may appear on the dorsal surface of the hand. The hand shows severe atrophy of the interosseous muscles; and, there is severe limitation of motion at the metacarpophalangeal and interphalangeal joints. Subluxations are present occasionally. Fascial changes in many ways resembling Dupuytren's contrac-

tures are common. Sudeck's atrophy of the bone may appear prominently on roentgen ray films, or an osteoporosis of disuse may obliterate it.

Etiology

To give adequate attention to the etiology of this syndrome, it will be necessary to discuss it in two parts, namely:

1. The primary stimulating factors or diseases, and
2. The neurophysiological mechanism set up by the primary stimulating factor.

Most authors reporting on this subject within the last ten years agree that the primary stimulating diseases are many, whereas, the reflex neurological mechanism is essentially the same in all cases of the shoulder-hand syndrome.

Studies on the dynamics of this disorder have concerned largely the traumatic cases; but, it is generally recognized now that external trauma constitutes only one source of reflex dystrophy. The current concept is that either external or internal disorders may be expressed by clinical features seemingly unrelated to the original disorder through a neurological reflex mechanism.

It should be kept in mind that the clinical expressions of reflex dystrophy, as indicated by Steinbrocker,¹⁷ can be divided into two general clinical forms:

1. Incomplete or abortive forms, and
2. Complete reflex dystrophy of the upper extremity, which is the true shoulder-hand syndrome.

Steinbrocker,¹⁷ in 1948, reported on a series of cases presenting the features of the shoulder-hand syndrome; and, he classified the primary stimulating diseases of the syndrome under four main groups:

1. Idiopathic.
2. Peripheral lesions, such as
 - a. Trauma and suppuration of an extremity,
 - b. Vascular diseases, such as, thrombophlebitis, diffuse vasculitis, and periarteritis nodosa,
 - c. Intraforaminal osteoarthritis of the cervical vertebrae,
 - d. Cardiac disease, such as postinfarctional,
 - e. Other thoracic disease, such as, postpneumonia.

3. Cerebral lesions, as in the hemiplegic.
4. Lesions of the spinal cord and ganglia.

Steinbrocker reported 25% of his cases as idiopathic, because the shoulder-hand syndrome was present in that many without historical or physical evidence of a primary stimulating disease.

Recent reports of the shoulder-hand syndrome have been primarily concerned with its relation to heart disease. Johnson¹, in 1943, reported on 178 consecutive cases of myocardial infarction; and, he found almost 22% developed the clinical features of the shoulder-hand syndrome.

Hilker¹⁸, in 1949, reported on a series of cardiac cases in which he found that not only myocardial infarction but also prolonged coronary insufficiency with angina pectoris could be the primary stimulus for the shoulder-hand syndrome. He also pointed out that those cases of myocardial infarction which developed cardiac failure were more prone to run the full course of the shoulder-hand syndrome.

The current concepts of the neurophysiological mechanism of reflex dystrophy and the shoulder-hand syndrome are based on the work of deNo¹⁴. In 1938, while discussing reflex mechanisms initiated by a focus of irritation or injury, he elaborated on the probable role of the so-called internuncial pool. His investigations reveal this pool to be an extensive network of interconnecting neurones in the central gray matter extending over many segments. At these levels, potential connecting pathways are formed between incoming impulses and motor neurones of either the sympathetic or anterior horn cells.

The clinical features seen in the shoulder-hand syndrome present a number of symptoms and signs which must be effected through the autonomic and the cerebrospinal outflow of several cervical and thoracic spinal segments. The sympathetic pathways are believed to be especially important in this respect. The afferent stimuli may be assumed to originate from a focus of physiologic irritation or from a local injured area in an extremity, in the heart, in the cortex, or in an external or internal tissue. In many cases, the afferent stimuli must enter cord segments far removed from those supplying the upper extremity. Because of this fact and because of the rather dif-

fuse nature of the signs found in the shoulder-hand syndrome, the segments involved usually defy accurate neurological localization.

As an example, following a myocardial infarction afferent stimuli travel from the injured area by way of the cardiac nerves to enter the spinal cord at levels T1 to T4. These stimuli activate the internuncial pool of neurones in that area of the cord. The disturbance spreads upward with effects on the anterior horn cells; and, it travels downward to involve the sympathetic neurones of the lateral horn cells innervating the upper extremity.

The continuous activity of the internuncial pool and the chronicity of the shoulder-hand syndrome may be due to self-exciting and self-perpetuating closed chains established at various points in an irregular fashion. The diffuse involvement, upward and downward, of the spinal cord segments would account for the fact that specific myotomes and dermatomes do not seem to be selectively affected in this syndrome.

Many of the clinical features point to a neurovascular imbalance. In the first stage of the shoulder-hand syndrome the hand is generally warm and swollen. Plethysmographic studies by Miller and deTakats¹⁹ have shown this elevated surface temperature to be due to increased blood flow through the extremity. The use of sympathetic nerve block has been found to be more effective in this particular stage than in other stages in curing the shoulder-hand syndrome. This fact seems paradoxical; and, it defies explanation at this time even though it is known that sympathetic block further increases blood flow on the dystrophic side.

Hyperemia in the early course of the syndrome causes most of the clinical features, and it is also believed to be the cause of the bony decalcification seen by roentgen ray films. In the later stages of the syndrome a different type of vasomotor disturbance is present. The hand is generally cold, and the skin appears thin and atrophic. Ischemia completes the evidence of vasoconstriction.

It is believed that this autonomic disturbance is part of a "vicious circle" which maintains a state of irritability at the termination of pain receptors. It has been proposed that this may be due to alterations in local metabolites. This is thought to lead to continuous stimulation of the in-

ternuncial pool of neurones of the spinal cord.

When the efferent elements of this circuit, especially the sympathetic fibers, are interrupted, the "vicious circle" is broken, and its attendant pain is abolished. The relief of muscle spasm may be explained on the same basis.

Reflex dystrophy may occur in the face or in the lower extremities; but, there is no record of any set of reflex phenomena in the lower extremities analogous to the shoulder-hand syndrome. This is believed to be true because the upper extremities are said to be provided with a relatively greater network of sympathetic communications as compared to the lower extremities.

Diagnosis

It is generally not considered difficult to recognize complete reflex sympathetic dystrophy or the shoulder-hand syndrome if it is observed as it progresses through its classical stages. The fact that the syndrome may be first seen at any point in any of the three stages makes it important that an accurate history be taken. The full course of the syndrome may require several years; but, if the historical evidence suggests the salient clinical features in any of the three stages, as they have been outlined, the diagnosis of the shoulder-hand syndrome should be strongly considered. It should be kept in mind that there may be overlapping of the stages, and that some of the minor clinical features may not be present. It should also be remembered that the history of a primary stimulating disease may not always be obtained, since in 25% of Steinbrocker's cases the etiology was idiopathic. The use of the stellate block can be employed as a diagnostic therapeutic test. If an accurate block is administered and if the symptoms subside, either permanently or temporarily, a definite diagnosis can be made. But, as will be pointed out shortly, it is more difficult to get a permanent cure or remission by stellate block if the syndrome is allowed to progress too long.

It is believed by recent authors that the unity of the clinical features of this complete form of reflex sympathetic dystrophy and its designation as the shoulder-hand syndrome may stimulate more frequent and earlier diagnosis of the disorder. The disabling and disfiguring features are rea-

son alone to warrant early diagnosis. Chitwood²⁰, in 1950, placed emphasis on early recognition of the syndrome following myocardial infarction. He agrees that any pain in the shoulders, arms, or hands after an acute myocardial infarction should be viewed with suspicion. He pointed out, however, that persistent pain in the shoulder and hand after a myocardial infarction is often accepted as sufficient evidence to require many extra and needless weeks of bed rest far beyond the usual period for the patients when actually the shoulder-hand syndrome is the basis for the pain. Chitwood also pointed out that any patient who has had a myocardial infarction has been sufficiently impressed by the seriousness of his illness; and, when pain continues and unless the shoulder-hand syndrome is recognized, the physician may help the patient superimpose a severe cardiac neurosis on coronary artery disease.

As will be pointed out, the shoulder-hand syndrome on physical examination may be confused with bursitis, arthritis, and the scalenus anticus syndrome. Not recognizing the shoulder-hand syndrome when present in such instances could subject the patient to many expensive and valueless therapeutic procedures.

Differential Diagnosis

Since this paper is primarily concerned with a discussion of complete reflex sympathetic dystrophy or the shoulder-hand syndrome, it is necessary at this time to mention that the disease must be distinguished from incomplete forms of reflex sympathetic dystrophy.

Painful disability of the shoulder as the only manifestation of reflex dystrophy sometimes follows coronary occlusions and cerebrovascular accidents. Steinbrocker¹⁷ has reported this form of incomplete reflex dystrophy in patients with Parkinsonism and after a variety of intrathoracic diseases. Early, such shoulder disability might suggest the beginning of the first stage of the shoulder-hand syndrome. But, failure of abnormal symptoms and signs to appear in the hand should usually discourage a diagnosis of the shoulder-hand syndrome.

Swelling and atrophy of the hand unassociated with shoulder disability has been reported to sometimes follow cerebrovascular accidents, herpes zoster, and trauma to the upper extremity. Here again, such

findings should be considered as an incomplete or limited form of reflex dystrophy.

Contracture of the palmar fascia and of the flexor tendons in many respects similar to Dupuytren's contractures are common findings in the shoulder-hand syndrome; but, such findings also may appear as simple, isolated, uncomplicated features in some patients, as well as in patients with cardiac or pulmonary disease. Some authors believe these deformities to be due to a disturbance of sympathetic innervation.

Aside from the necessity of distinguishing the shoulder-hand syndrome from the various varieties of incomplete reflex dystrophy, it must also be distinguished from several definite clinical entities that are not generally considered to be of neurogenic origin.

The early stages of reflex shoulder involvement may sometimes resemble bursitis and periarticular fibrositis. The sudden or insidious pain, the diffuse tenderness, and disability in all ranges of motion are similar to those seen in uncomplicated peripheral disorders of the shoulder. The onset of hand signs usually resolves any doubt of the diagnosis, and it usually completes the evidence needed for a diagnosis of the shoulder-hand syndrome.

Besides soreness in the neck and shoulder and weakness of grip when the hand is swollen, the chief resemblance of the shoulder-hand syndrome to the scalenus anticus syndrome lies in the tenderness of the scalenus anticus muscles in some patients. Injection of the scalenus anticus muscle with procaine fails to relieve the pain of the shoulder-hand syndrome.

The appearance of the hand and fingers in the shoulder-hand syndrome is only suggestive of rheumatoid arthritis in the early stages. In the shoulder-hand syndrome the swelling of the hand and digits is uniform, and it affects them all diffusely rather than being limited to the periarticular tissues of one or several metacarpophalangeal or proximal interphalangeal joints. Tenderness to palpation is generalized rather than restricted to joint areas. Also, other joints besides those of the upper extremities may be involved in rheumatoid disease. In the shoulder-hand syndrome, the sedimentation rate is usually normal. In the early stages of reflex sympathetic dystrophy, the patients are usually afebrile, and leukocytosis is usually not found.

Early hand symptoms and signs may sometimes simulate gout. The repeatedly normal blood uric acid, the unresponsiveness to therapy for gout, and a history of trauma or evidence of high visceral disease should suggest the probability of reflex dystrophy.

The appearance of the hand in the late stage of the shoulder-hand syndrome has been regarded by some as the equivalent of scleroderma; but, the rigid, thickened cutis with pigmentation so characteristic of long-standing scleroderma is generally not observed in the shoulder-hand syndrome.

Treatment

Procaine block therapy is currently considered the best form of treatment for reflex sympathetic dystrophies, including the shoulder-hand syndrome. DeTakats²¹, in 1943, as advocated by Leriche²², in 1939, used procaine infiltration with variable results in patients with posttraumatic reflex dystrophy. This form of treatment was used in an effort to interrupt the circuit in the neurophysiological mechanism. Procaine infiltration was advocated at two points in this reflex mechanism. The first was at the site of the stimulating disease; and, the second was at the paravertebral sympathetic chain. It was found that often several blocks at varying intervals were needed to get improvement. In some cases with recurrence of symptoms after block, upper dorsal paravertebral ganglionectomy was performed.

Prior to 1943 various methods were used to treat reflex dystrophy. Oppenheimer¹⁰, in 1938, used a series of ultra-short wave treatments over the neck. Askey¹, in 1941, used treatment primarily directed toward relief of pain with narcotics and salicylates. In conjunction with this he also employed heat and massage to the affected extremity.

Steinbrocker²³, in 1948, reported that his results with procaine injection at the primary stimulating site in cases of the shoulder-hand syndrome were for the most part unsatisfactory. He states that this is generally due to the difficulty in locating the primary site of stimulation and the frequent technical inability to infiltrate such a site if it is known.

Steinbrocker obtained his best results in the treatment of the shoulder-hand syndrome with repeated stellate and upper

dorsal sympathetic procaine blocks by the anterior or anterolateral approaches. His series of cases treated by this method received 1 to 12 blocks administered at 2 to 7 days intervals.

Although his series of the shoulder-hand syndrome treated in this manner consisted of only 18 cases, it probably constitutes the best followed and the largest single series of such cases reported. About 90% of his cases obtained complete recovery from the shoulder disability. About 80% of these cases were relieved of hand pain; and, about 75% of them received varying degrees of recovery in the hand signs. When sympathetic blocks give only partial relief of symptoms, or when the beneficial result of blocks are only temporary, he advocates sympathetic surgery if the patient's physical condition permits. Steinbrocker believes that if sympathectomy fails and if the pain is intractable, then anterolateral cordotomy or sensory denervation of the cortex should be considered. He states, however, that these procedures are rarely necessary. Brachial plexus block was performed on some of his cases. This often gave relief of the shoulder disability, but it failed to alter the hand features.

Bayles²⁴, in 1950, reported on a series of 17 cases of the shoulder-hand syndrome in which he reported satisfactory results with procaine hydrochloride stellate ganglionic blocks.

Steinbrocker also advocates supplementary orthopedic and physiotherapeutic measures for the prevention and correction of deformity at all stages of the disorder within the limits of each patient's reserve.

Coventry²⁵, in 1953, reported on the use of cortisone in conjunction with analgesic drugs and physiotherapeutic measures on cases with his so-called periarthrititis of the shoulder which develop hand symptoms and signs.

Spontaneous recovery while in stage one or stage two of the shoulder-hand syndrome sometimes occurs. Although spontaneous recovery while in stage three has occurred, it is infrequent. Without therapy, the ultimate course in any individual case is completely unpredictable. It is also known that the best results are obtained by stellate blocks which are instituted in the earlier stages of the disorder. Steinbrocker feels that if a patient fails to respond to stellate blocks, then the re-

sults with sympathectomy will be uncertain. For these reasons, it is generally felt that therapy should be started as early as possible if maximum results are to be obtained in cases of the shoulder-hand syndrome.

Summary and Conclusions

1. The shoulder-hand syndrome has been considered a distinct clinical entity since 1941. It has been shown that this disorder is the complete form of reflex sympathetic dystrophy of the upper extremity.

2. When there is not spontaneous recovery or alterations by therapy, the disorder is recognized to progress through three stages:

a. The first stage lasts from three to six months. It is characterized by a painful stiff shoulder, and by a swollen, stiff, warm, discolored hand.

b. The second stage also lasts from three to six months. It is generally characterized by gradual relief of the shoulder pain, but progression of the shoulder stiffness; and, by the appearance of atrophy of the subcutaneous tissue and interosseous muscles of the hand as the swelling subsides. In addition to these clinical features, there is progression of stiffness in the hand with the possible appearance of Dupuytren-like contractures.

c. The third stage is an advancement of the second stage with progression of the atrophy, stiffness, and contracture deformities until the hand is hard, cold, and deformed.

3. This disabling and disfiguring condition is believed to be the result of impulses arising from an area of injury, either external or internal, which stimulate cerebrospinal and autonomic nervous pathways through the widespread internuncial pool of neurones to cause the pain and trophic changes which characterize the disease.

4. The form of therapy that is currently recorded as giving the highest rate of cures or improvements is the repeated administration of stellate or upper dorsal paravertebral ganglionic procaine blocks.

REFERENCES

1. Aske, J. M.: The Syndrome of Painful Disability of the Shoulder and Hand Complicating Coronary Occlusion. *Am. Ht. J.*, 22: 1, 1941.
2. Sudeck, P.: *Arch. Klin. Chir.*, 62: 147, 1900.
3. Homens, J.: *Ann. Surg.*, 113: 932, 1941.
4. deTakats, G.: *Arch. Surg.*, 34: 939, 1937.

5. Howard, T.: Cardiac Pain and Periarthritis of the Shoulder; *Med. J. and Rec.*, 364, 1930.
6. Edeiken, J., and Wolferth, C. C.: Persistent Pain in Shoulder Region following Myocardial Infarction. *Am. J. Med. Sci., CXCI*, 201, 1936.
7. Boas, E. P., and Levy, H.: Extracardiac Determination of Site and Radiation of Pain in Angina Pectoris with Special Reference to Shoulder Pain. *Am. Heart J.*, 14: 540, 1937.
8. Leech, C. B.: Painful Shoulder in Association with Coronary Artery Disease. *Rhode Is. Med. J.*, 21: 104, 1938.
9. Ernstene, A. C., and Kinell, J.: Shoulder Pain as a Sequel to Myocardial Infarction. *Arch. Int. Med.*, LXVI: 800, 1940.
10. Oppenheimer, A.: The Swollen Atrophic Hand. *Surg., Gyn., and Ob.*, 67: 446, 1938.
11. Johnson, A. C.: Disabling Changes in the Hands Resembling Sclerodactylia Following Myocardial Infarction. *Ann. Int. Med.*, 19: 433, 1943.
12. Kehl, K. C.: Dupuytren's Contracture as a Sequel to Coronary Artery Disease and Myocardial Infarction. *Ann. Int. Med.*, 19: 213, 1943.
13. Powers, H.: Dupuytren's Contracture 100 years after Dupuytren: Its Interpretation. *J. Nerv. and Ment. Dis.*, LXXX: 386, 1934.
14. Evans, J. A.: Reflex Sympathetic Dystrophy. *Surg., Gyn., and Ob.*, 82: 36, 1946.
15. deNo, R. L.: Analysis of the Activity of the Chains of Internuncial Neurons. *J. of Neurophysiology*, 1: 207, 1938.
16. Livingston, W. K.: Pain Mechanisms: A Physiological Interpretation of Causalgia and its Related States. Chap. 4. The Macmillan Co., New York, 1943.
17. Steinbrocker, O., Spitzer, N., and Friedman, H. H.: The Shoulder-Hand Syndrome in Reflex Dystrophy of the Upper Extremity. *Ann. Int. Med.*, 29: 22, 1948.
18. Hilker, A. W.: The Shoulder-Hand Syndrome: A Complication of Coronary Artery Disease. *Ann. Int. Med.*, 31: 303, 1949.
19. Miller, D. S. and deTakats, G.: Posttraumatic Dystrophy of the Extremities. *Surg., Gyn., and Ob.*, 75: 558, 1912.
20. Chitwood, W. R.: The Importance of Recognizing Post-Infarctional Shoulder-Hand Syndrome. *New England J. of Med.*, 243: 813, 1950.
21. deTakats, G., and Miller, D. S.: Posttraumatic Dystrophy of the Extremities. *Arch. of Surg.*, 46: 469, 1943.
22. Leriche, R.: The Surgery of Pain. Williams and Wilkins, Baltimore, 1939.
23. Steinbrocker, O., Spitzer, N., and Friedman, H. H.: The Treatment of the Shoulder-Hand Syndrome (Reflex Dystrophy of the Upper Extremity), with Special Reference to Sympathetic Block; A Preliminary Report; Current Researches in Anesthesia and Analgesia, 27: 273, 1948.
24. Bayles, T. B., Judson, W. E., and Potter, A. A.: Reflex Sympathetic Dystrophy of the Upper Extremity (Hand Shoulder Syndrome). *J.A.M.A.*, 144: 537, 1950.
25. Coventry, M. B.: Problem of Painful Shoulder. *J.A.M.A.*, 151: 177, 1953.

Intestinal Obstruction

RUDOLF J. NOER, M.D.

Louisville

Intestinal obstruction (ileus) is not, in itself, a disease entity. It is rather a secondary disorder resulting from some other primary pathologic condition. Many individuals restrict the term "ileus" to situations resulting from peristaltic inhibition. Gould, however, defines ileus as "A condition brought about by intestinal obstruction which may be adynamic, due to paralysis of the bowel; or mechanical, due to pressure upon or blockage of the gut. It is marked by abdominal distention, severe pain, vomiting which gradually becomes fecal, with rising pulse and toxemia, and ends fatally unless relieved¹." Johnson has frequently defined ileus even more simply as "any condition which interferes with the forward progress of intestinal content²." The multiplicity of terms in common use demands that we state clearly what is meant when we refer to any of these various conditions.

Causes of Obstruction

Many statistical reports are available in the literature and there is rather com-

plete uniformity among them as to the most common cause of intestinal obstruction. By far the largest group is that included under the heading "strangulated external hernia," which may be generally expected to occupy somewhere between thirty-five and forty-five per cent of all cases. The next most common group includes the obstructions caused by bands and adhesions, which comprise twenty-five to thirty-five per cent of most series. The obstructions by bands and adhesions may be divided into three categories: (1) early postoperative adhesions (usually those occurring in the first few months following operation), (2) late postoperative adhesions, and (3) those occurring without previous operation. A small but very important group is that referred to as "internal strangulation," including intussusception, volvulus, strangulation by adhesive bands, and internal herniae: while these conditions cause a relatively small proportion of the cases of intestinal obstruction, it is in just these cases that the urgency is greatest for restoring the circulation. Obstruction due to neoplasm is not common in the small intestine but is a relatively frequent cause of large bowel obstruction. Finally, one must always include in such a tabulation as this the obstruction due to congenital ano-

¹From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. (Based upon work from the Department of Surgery, Wayne University College of Medicine, Detroit, Michigan.)

²Much of this material was presented before the Jefferson County Medical Society, at Louisville, Kentucky, on March 16, 1953, and before the Fayette County Medical Society, at Lexington, Kentucky, on May 14, 1953.

malies such as Meckel's diverticulum, and also the rather rare cases of obturation obstruction caused by blockage of the intestine by a contained body, most commonly a gallstone.

Classification according to etiologic agents, while of considerable interest, is much less helpful in understanding the basic physiologic disturbances than one which emphasizes the effects of these agents upon the intestinal tract. An example of the latter is that designed by Crowley³. This classification recognizes three basic types of pathologic processes commonly responsible for intestinal distention: (1) conditions producing occlusion or obstruction of the lumen ("mechanical obstruction"), (2) processes associated with diminished intestinal peristalsis ("adynamic ileus"), and (3) lesions producing embarrassment of intestinal circulation. While it is true that one of these factors is usually primary, it is also common for either or both of the other factors to play a part in the ultimate physiologic disturbance of the patient. For example, occlusion of the intestinal lumen, if continued sufficiently long, may eventually result in both failure of peristaltic power and embarrassment of the circulation in the wall of the gut.

Causes of Death

The cause of death in patients suffering from intestinal strangulation (i.e. interruption of the mesenteric blood supply) is well understood. Avascularity of the intestinal wall leads to perforation, peritonitis and death. In nonstrangulating obstruction, however, the sequence of events is by no means so clear, and many lethal factors have been advanced as primary. For many years "toxemia" was believed to be the basic disturbance. Many efforts were made to withdraw material from the obstructed intestine which might be lethal when injected into experimental animals. Though this was actually shown to be possible, other investigators produced a similar lethal outcome with material from nonobstructed intestines. The work of Herrin and Meek⁴ and of Taylor, Weld, and Harrison⁵ showed quite clearly that distention and its sequelae are actually responsible for death of the untreated patient with nonstrangulating obstruction. It was shown that distention of the intestine would reproduce in the experimental animal all of the essential parts of the obstruction pic-

ture even though a tube was present within the distending balloon to drain out any toxic material which might be accumulating. This is conclusive evidence that something other than toxemia must be the cause of death. Crowley and Johnston⁶ (fig. 1) have well outlined the chemical changes initiated by distention, which ultimately lead to cellular dehydration and death in the nonstrangulated patient. Other explanations of the fatal outcome have been "shock," which is undoubtedly present in many late cases of intestinal obstruction, but is the result rather than the cause of the condition, and "neurogenic factors." The latter are suggested by the fact that experimental animals with denervated intestines survive longer than those without such procedure. Nevertheless, the fact that death does ultimately occur in these animals makes it apparent that such factors must be minor rather than major. The work of Haden and Orr⁷ and of McLean and Andries⁸ emphasized the value of fluid and electrolyte replacement therapy in the treatment of obstructed patients.

Diagnosis

Reduction in the total mortality from intestinal obstruction has been achieved in recent years through better understanding of the basic physiology pointing the way to more effective treatment methods, but mortality rates still remain higher than would be desirable. Earlier diagnosis offers one of the best approaches to a higher survival rate, and should not be difficult if one keeps in mind the possibility of intestinal obstruction. The his-

FIGURE 1

- (1) Obstruction from whatever cause
- (2) Stasis of intestinal content
- (3) Progressive distention from fluid and gas
- (4) Transudation of fluid and chloride into the bowel from the blood
- (5) CO₂ retention—Sodium excretion with water
Water influx to blood from interstitial spaces
- (6) Loss of intracellular water from the cells themselves
- (7) Death

Fig. 1. Outline of the physiologic changes produced by intestinal distention. (Crowley and Johnston⁶)

tory is usually that of cramping, intermittent pain, severe in nature and sudden in onset, with associated reflex vomiting which occurs rather early. The one characteristic physical finding is distention. Practically all obstructed patients show this, and occasionally one with mechanical obstruction will also show visible peristalsis. If the distention is asymmetric, one may suspect a "closed loop" obstruction, but in these cases the distention soon becomes generalized. Tenderness is usually not present except in strangulation.

Traditionally, we have been told that "fecal vomiting" and either constipation or obstipation are essential parts of the picture. (Dr. George Hendon, late Professor of Surgery at the University of Louisville, used to refer to these as "signs of impending death.") It cannot be too strongly emphasized that none of these are at all essential to the diagnosis of ileus, either mechanical or adynamic. "Fecal vomiting" actually can occur only by the reflux of large intestinal content to the stomach and thence out the mouth; what is usually meant by the term is the vomiting of small intestinal content. It is obvious that the first vomiting, which is reflex in nature, will contain only material which was in the stomach at the time the vomiting started. Only later, as the material from the small intestine works its way from the obstructed point back into the stomach, will the vomiting partake of the nature of small intestinal content. There are patients with intestinal obstruction who not only have no constipation but who even have diarrhea. This is understandable if one will only recall the fact that there is still a functioning gastrointestinal tract distal to the point of obstruction. Until this portion of the tract is empty, there will not be either constipation or obstipation. Obviously, therefore, early diagnosis must not demand either constipation or obstipation as essential to the picture.

An estimate of the possibility of strangulation is imperative. Actually, this condition may be suspected in a high percentage of cases. The characteristic features of strangulating obstruction are those of simple obstruction, more acute and severe, more rapid in onset and more rapidly progressive. The pain and vomiting occur early and are severe and persistent and there is often an associated deep "boring" type of pain between parox-

ysms. (This has been interpreted as due to traction on the mesentery since it is similar to pain sometimes suffered by patients undergoing operative procedures under spinal anesthesia.) The distention in strangulating obstruction is often asymmetric early, though generalized later, and tenderness may also be present in localized areas of the abdomen. Of the utmost importance is the fact that the picture is very rapidly progressive and that prostration occurs early and quickly leads to shock. One must always undertake an exploratory operation, unless he can be reasonably confident that strangulation is not present, however hazardous such early operation might be.

There is but one laboratory finding of value in the early diagnosis of intestinal obstruction: the supine and erect "scout films" of the abdomen. These do not require extensive equipment and can be made reasonably well even with a simple mobile X-ray unit. Small intestinal gas shadows, in the adult, are usually indicative of the presence of some type of ileus. The erect film will show fluid levels (if the patient is too ill the same effect can be obtained by a lateral decubitus position), while the supine films will give a better differentiation between the shadows of small and large intestinal gas. Ordinarily, mechanical obstruction will show distention of the small bowel alone, while adynamic ileus commonly reveals both small and large intestinal gas (figures 2 and 3). Blood count and blood chemical determinations are helpful in determining the patient's general condition, but are not necessarily diagnostic of intestinal obstruction since similar derangements may be produced by a number of other conditions. They should be obtained, however, for their value in indicating the type of therapy to be undertaken.

Treatment

A diagnosis of strangulating intestinal obstruction demands immediate operative intervention to spare the patient the hazard of intestinal gangrene, perforation and peritonitis. Even though such a patient is in poor physical condition because of protracted vomiting with resultant dehydration and electrolyte deprivation, it is not safe to delay operation for decompressive measures. It should be borne in mind, however, that it usually takes at least an hour to set up the operating room



Fig. 2. Mechanical intestinal obstruction. Note fluid levels in erect film (left), and the distribution of small intestinal gas and relative absence of colonic distention on the supine film (right).

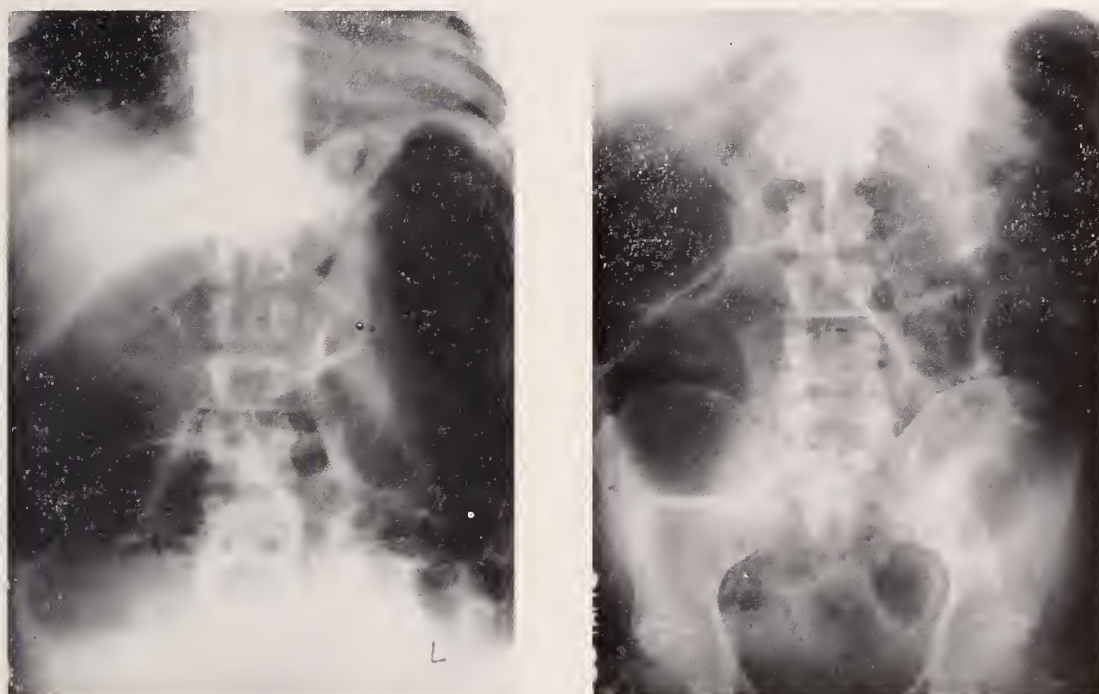


Fig. 3. Adynamic ileus. Note gaseous distention of both small and large intestine, seen in both erect (left) and supine (right) films.

and make other necessary preparations; this is a golden opportunity to replace at least some of the lost electrolytes and to fortify the patient by blood transfusion. There should be no delay in instituting these measures for they will greatly improve the patient's chance of survival. It is also well to place a tube in the patient's stomach, not only to empty this organ preoperatively but also to control swallowed gas postoperatively. The operation, of course, must accomplish the discovery and release of the obstructing agent.

Nonoperative Decompression

If one can be reasonably confident that there is no strangulation, and in all cases of adynamic ileus, nonoperative decompressive measures offer the best prospect. Recent years have seen much improvement in this type of therapy which is based upon the previously mentioned work showing that distention of itself can initiate the entire pathologic picture. Figure 4 illustrates the three types of tube commonly used for decompression. The tube placed in the stomach is, of course, most efficient for emptying that organ. Since approximately seventy per cent of the distending gases are due to swallowed air, this is the most efficient tube for the prevention of postoperative ileus or that following trauma. Once distention has developed, however, this tube is the least efficient of the three. The duodenal tube, as described by Ward⁹ and by Wangenstein¹⁰, has a greatly increased deficiency in that it has passed through the pylorus and material to be drained does not have to work its way back through the intes-

tinal tract nearly as far nor does it have to get through the pylorus before it can be aspirated. A considerable percentage of distended patients can be handled adequately by this type of tube. There will still remain a considerable number who can only be decompressed by the utilization of the balloon tipped tube first described by Miller and Abbott¹¹ and first used in intestinal obstruction by Abbott and Johnston¹². Once this tube has passed through the pylorus, peristalsis will pick up the balloon and pass it on down the intestine, aspirating gas and fluid content as it proceeds. The tube can thus be brought to the point of obstruction and it is for this reason the most efficient nonoperative method for gastrointestinal suction drainage. It has been erroneously stated that the Miller-Abbott tube is not a successful method for treating adynamic ileus because of the lack of propulsive power. It has been abundantly shown that once the intestine is decompressed it will regain its propulsive power very rapidly, and actual experience reveals that the balloon tipped tube passes more readily and with greater rapidity in the patients with adynamic ileus than it does in those with mechanical intestinal obstruction. It is important, however, that there be some means for the suction to be exerted in advance of the balloon.

There are many different types and modifications of the Miller-Abbott tube now commercially available. Some of them leave much to be desired from the standpoint of efficiency, but the one thing that will finally determine success or failure is the ability of the man who is passing them. One sometimes hears criticism leveled at these tubes on the basis that they are difficult to pass. It is no more correct to criticize a tube because an individual does not know how to pass it, than it is to criticize a blood pressure apparatus because the freshman medical student is unable to take a blood pressure until he has learned a relatively simple technique required. There are techniques to be learned, which are not difficult; in centers where intestinal intubation is regularly used, a very high percentage of successful passage of the tube is uniformly obtained, though there will always be occasional cases in which the tube can not successfully be passed. It should be pointed out that it is well not to delay overly long under such circumstances for fear

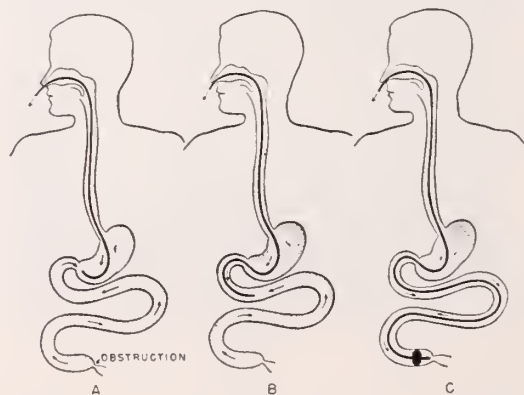


Fig. 4. Types of tube for gastric and intestinal suction drainage. A. Gastric Tube: B. Duodenal Tube: C. Intestinal Tube (after Crowley and Johnston⁶)

of untoward results. It must also be pointed out that the tube must continuously function else the patient is just as obstructed as he was before the tube was passed. Treatment by gastrointestinal suction drainage requires more diligence on the part of the staff than does operative treatment; however, there is no question that relief of distention permits restoration of the patient's physiological status to the point where he can safely be operated upon without the hazards attendant upon the emergency operation in the dehydrated over-distended patient with disturbed electrolyte balance.

Contraindications to Suction Drainage

Certain contraindications to treatment of intestinal obstruction by gastrointestinal suction drainage should be enumerated:

- (1) Strangulated external herniae—immediate operation necessary.
- (2) Small bowel strangulation—immediate operation necessary.
 - a. Volvulus
 - b. Intussusception
 - c. Strangulated internal herniae
 - d. Strangulation by adhesive bands
 - e. Other types of internal strangulation
- (3) Large bowel obstructions
(The Miller-Abbott tube must never be depended upon to pass through the ileocecal valve with enough regularity or rapidity to justify its use as a primary approach to the problem of colonic distention. This situation is best managed by a proximal colostomy.)

Advantages of Suction Drainage

The advantages of suction drainage in treatment of the nonstrangulated patient with intestinal obstruction are many. In mechanical obstruction preoperative decompression greatly facilitates the operative procedure; it obviates the terrific struggle with distended intestinal loops which tend to push out of the incision at all points and which make identification of the obstructing point extremely difficult. Following decompression by intestinal intubation the operative procedure may be done as a matter of election with the patient's fluid and electrolyte balance restored to normal, thus making it a safe rather than a hazardous procedure. Intestinal intubation permits of

preoperative localization of the obstruction with barium. It is a well known fact that barium should not be given to the patient with intestinal obstruction under ordinary circumstances. However, with the tip of the intestinal tube lying at or near the point of obstruction it is possible to give a small amount of barium, then to make roentgenograms to demonstrate the point of obstruction, after which the barium may be washed out by irrigation through the tube so that it will not become inspissated and add to the obstructive difficulties. In adynamic ileus gastrointestinal suction drainage by intubation is by far the most effective method of treatment. It is vastly more efficient than any of the drugs yet available to us and it provides a direct attack upon the distention which is the primary cause of the patient's difficulty. Enterostomy often drains but one loop and that poorly; a properly handled balloon tipped tube amounts to a controllable enterostomy which may be placed wherever it is needed in the intestine. It should also be pointed out that intubation is possible even in small children, often more easily than in adults. Finally, it must always be emphasized that gastrointestinal intubation must never delay operation in patients in which there is any possibility of strangulating obstruction.

Analysis of the various reported mortality rates from intestinal obstruction over the last 50 years, and a comparison of these rates with ideas as to etiology and treatment methods, gives a very revealing picture. During the early part of this century, the dictum was widely held that "the sun must not rise or set upon the unoperated case of intestinal obstruction." This idea became more and more generally accepted, yet the mortality rate remained between forty and sixty per cent in the best of centers. The introduction of electrolyte replacement and adequate administration of fluids brought about the first reduction in the mortality about 1915 to 1925. (This has proved one of the greatest contributions in the treatment of this troublesome condition and it is now a universally accepted adjunct to other treatment measures.) The idea that toxemia was primarily responsible for intestinal obstruction was developing during the period of 1910 to 1915 and during the 1920's was widely held in most parts of the world. General acceptance of this idea and adoption of measures aimed at

overcoming the toxemia or removing toxic materials from the intestine failed to improve the situation. Mortality remained in the neighborhood of thirty to forty per cent until the advent of decompressive measures, beginning with the duodenal suction drainage of Ward and Wangenstein in the early 1930's and followed not long thereafter by the development of the balloon tipped tube by Miller and Abbott and its use in obstruction by Abbott and Johnston. Today the death rate varies between five and fifteen per cent; the lower figures are reported for the most part only from centers utilizing a judicious combination of intestinal suction drainage for nonstrangulated patients, and immediate operation for suspected strangulation, with an active program of fluid and electrolyte replacement for all patients. Despite a very gratifying reduction in mortality, the death rate still remains far higher than is desirable. It would appear that the best prospect for further lowering of the mortality may well lie in earlier diagnosis, which will permit necessary curative therapy before

the extensive physiologic changes described herein have taken place. Only thus can we hope to eliminate needless deaths from neglected intestinal obstruction.

BIBLIOGRAPHY

1. Blakiston's New Gould Medical Dictionary, First Ed. Philadelphia, The Blakiston Company, 1949.
2. Johnston, Charles G., Personal communication.
3. Crowley, R. T., and Johnston, C. G.: Therapeutic Considerations in Acute Obstruction of the Small Bowel. *Internat. Abstr. Surg.* 73: 1-7, 1941.
4. Herrin, R. C., and Meek, W. J.: Distention as a Factor in Intestinal Obstruction. *Arch. Int. Med.* 51: 152, 1933.
5. Taylor, N. B., Weld, C. B., and Harrison, G. K.: Experimental Intestinal Obstruction. *Canadian M. A. J.* 29: 227, 1933.
6. Crowley, R. T., and Johnston, C. G.: Physiological Principles in Intestinal Obstruction. *Surg. Clin. North America* 26: 1427-1439, (Dec.) 1946.
7. Haden, R. L., and Orr, T. G.: The Effect of Sodium Chloride on the Chemical Changes in the Blood of the Dog after Fyloric and Intestinal Obstruction. *J. Exper. Med.* 38: 55, 1923.
8. McLean, Angus, and Andries, R. C.: Ileus Considered Experimentally. *J.A.M.A.* 59: 1614, 1912.
9. Ward, Robertson: An Apparatus for Continuous Gastric or Duodenal Lavage. *J.A.M.A.* 84: 1114, 1925.
10. Wangenstein, O.H., and Paine, J. R.: Treatment of Acute Intestinal Obstruction with Suction by the Duodenal Tube. *J.A.M.A.* 101: 1532, 1933.
11. Miller, T. G., and Abbott, W. O.: Intestinal Intubation: A Practical Technique. *Am. J. M. Sc.* 187: 595, 1934.
12. Abbott, W. O., and Johnston, C. G.: Intubation Studies of the Human Small Intestine. *Surg. Gynec. & Obst.* 66: 691, 1938.

SPECIAL ARTICLES

County Societies and "The Rural Health Council"

AUBREY D. GATES

Little Rock, Arkansas

Thank you very much, Dr. Barr. I assure you, ladies and gentlemen, that it is a sincere pleasure and an honor to be invited to come here to discuss with you, for a few minutes, the desirability of rural health councils from the standpoint of practicing physicians. Dr. Yantes has done that far more eloquently than I could possibly do it, but may I present to you some arguments in favor of them from just a little different point of view? I have had the pleasure of working with your chairman, Dr. Barr; Dr. Walter O'Nan, Chairman of your Committee on Rural Health; Dr. Clark Bailey, your immediate past president; your genial and efficient Executive Secretary, Dr. Underwood, and a number of you in the past and what I shall have to say here is not new to you gentlemen because I have expressed it before.

I hope you understand me and I hope I make myself clear. I am conscious of the fact that I am a layman and I speak as one, and not as a member of organized medicine, although I am proud to be associated with the American Medical Association.

All of you have seen this propaganda movie that was shown here a little while ago and I am sure that your resentment and anger rises, as does that of any person who sees such flagrant distortion of the truth in this country. But it still is going on and it is going on apace, as is evident by the fact that the National Health Council is meeting to discuss the Truman Report of the Health of the Nation quite prematurely. It has all the evidence of a promotion scheme.

There are many other evidences of it and a lot of misunderstanding still must be cleared up. Recently I prepared an article which Dr. Bauer had the kindness to publish as an editorial in the February issue of *Today's Health*. I have had a little mail on it and I would like to read to you just the last paragraph of a letter I

received yesterday in connection with that editorial. The editorial was an argument stating that doctors invest a great portion of their active productive life in training rather than in productive capital as do farmers, insurance people or others. We were proud of it and, of course, we expected to get reactions to it. The last paragraph of the letter says, "While I am not really griping, I hope you won't feel that I am out of place if I might write my Congressman to get him to adopt some form of federal medical insurance so that when one of us gets sick we can afford to visit your friend, the doctor, and help him pay for his big new house and his Cadillac." So you see, we still have a tremendous job that we have to do.

Now, may I present the thing from this point of view as a layman? If any one of you gentlemen were to be haled into court of law to be tried on a charge of malpractice you would be facing a jury of twelve laymen. More than likely there would not be a single physician on the jury before which you were tried. They, as laymen, know nothing of scientific, modern day medicine, but they would have ideas. You would have to rely upon an attorney who is also a layman to help you assemble all of the facts in this case and present them to this jury of twelve laymen in such an effective, clear cut way that they could understand what the situation was in the case, and thus exonerate you. I hope no physician is ever charged with malpractice, but it has been done.

Gentlemen, that is exactly where we are in America today. Medicine has been tried in the court of public opinion and, according to this film you have just seen and this sample of correspondence and expressions I get in my contacts, you are still being tried in the court of public opinion. What is our job in that connection? Our job is to ally with this profession of medicine all the thinking groups in this

country and provide them with all the necessary correct information, free of bias and free of emotion, that will help to carry the case when the decisions are made and wherever policies are determined. Everybody is at work at this business of molding favorable public opinion except the medical profession. The chiropractors, the osteopaths, the naturopaths, all the fake healing arts are out in the civic clubs and everywhere else doing a job for themselves while you physicians are healing the sick and helping the communities in your own individual ways.

You have a story to tell! You have a story that everybody wants to buy. If you will do as your chairman, Dr. Barr, does, give some time to it—and many of you do—and as you are doing so effectively in your state legislature, as Senator Cox has indicated here today, the problem will be solved. You can bring in league with you these potential, strong lay groups, because, as the American Farm Bureau Federation so effectively contends, a man's judgment can be no better than his information.

Nobody can give this information better than you can in the kind of way that Dr. Yantes has described to you. The public should know that there is a difference between health and medical care, that medical care is a very important part of health but that the communities have some responsibilities, some very grave responsibilities, in the matter of preserving the health of the people. Regardless of the amount of medical and nursing care and hospitals available, if our people are ignorant and shirk those responsibilities in the fields of nutrition, sanitation, or elsewhere and if there are not effective ways of taking care of organized health endeavors then all the care in the world will be relatively ineffective. Until these things are done, the nation cannot have the best health that is possible to have. The people have responsibilities, personal and community wise, and they are glad to work at them, because all the organizations that I know have health programs of one kind or another.

Our public in this country must understand that we have the best health and best medical care in the world. We have just recently reached the divine blessing

that was promised to us in the scriptures, that man's life shall be three score years and ten. For all children born in this country, there is a life expectancy of three score years and ten. Never before has this been achieved anywhere in the world. This combined force of good health practices and wonderful medical care has brought it about and the public should clearly understand that in demonstrated ways, such as Dr. Yantes has shown here. I doubt if you could penetrate Clinton County, Ohio, with any kind of propaganda against the twenty-four doctors who now live there. We have reached the time in our national life that the philosophers, the poets, the dreamers, the scientists through all the history of human civilization have been talking, dreaming and preaching about in levels of living of healthful, happy people. We have exceeded their dreams. If we will simply take advantage of the opportunities we have to tell it, to prove it in a sincere way to these effective lay groups they will understand.

We have a lot of allies. Who are they? You know them in your own community far better than I do; they are the general farm organizations and what they want and need is information, for they are willing to help; the Extension Services have a County Agent and Home Demonstration Agent in every county; there are the ministers in your community; the civic clubs; the Chambers of Commerce; the P.T.A. groups and all the others whom you have and with whom you can form a council.

The Ohio story started with the efforts of a few men when Dr. Carl Mundy and Chuck Nelson working with some of these lay people started at the lay level. The pebbles they dropped in the pool have sent the wave entirely across the nation, for I have been on programs with Dr. Yantes as far away as the West Coast, in Oregon, where he has told so effectively this story. What Dr. Yantes and others are doing nation-wide every one of us must do in the individual communities, counsel with groups of people and give them correct information. And that is my plea and my prayer—for counseling among lay groups to see that they are properly informed and that their judgment may be strengthened by the correct information that they have.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

J. Duffy Hancock, 704 Brown Building, Louisville.....	President
Clyde C. Sparks, Ashland.....	President-Elect
Robert O. Joplin, Brown Building, Louisville.....	Vice-President
Wyatt Norvell, New Castle.....	Vice-President
Leon Higdon, Paducah.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville.....	Treasurer
Charles A. Vance, 271 W. Short Street, Lexington.....	Speaker
E. W. Jackson, Paducah.....	Vice-Speaker
John E. Haynes, Madisonville.....	Orator in Surgery
Robert S. Dyer, Fincastle Building, Louisville.....	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
W. Clark Bailey, Harlan.....	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate).....	1954
Bruce Underwood, 620 S. Third Street, Louisville.....	1955
Coleman Johnston, 211 W. Second Street, Lexington.....	1955

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1956
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1955
Third District Delmas M. Clardy, Hopkinsville.....	1956
Fourth District W. Keith Crume, Bardstown.....	1956
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1955
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. M. Stevenson, Brooksville.....	1955
Tenth District J. Farra Van Meter, 183 N. Upper St., Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1954
Twelfth District Garnett J. Sweeney, Liberty.....	1956
Thirteenth District Charles B. Johnson, Russell.....	1955
Fourteenth District John Archer, Prestonsburg.....	1956
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

A REALISTIC APPROACH ON VETERANS MEDICAL CARE

The greatest need in the Veterans Administration medical program is for the application of simple justice and plain common sense.

People of independent mind who endeavor to fairly understand the situation—be they President Eisenhower, former President Truman, or the respective editors of the Louisville Courier-Journal and the Saturday Evening Post—are in agreement on certain substantial facts:

1. The federal government should provide the finest possible medical care to veterans who have become physically handicapped as a result of service to their country.

2. Because of past, current and probable future demands for military service, the time is coming when practically the entire male population will be veterans. Under a policy of unrestricted service, with lenient interpretation of the "unable to pay" statement, this could mean universal free care for all men.

3. The tremendous cost of the Veterans Administration program, now between \$3,000,000,000 and \$4,000,000,000 a year, largely is attributable to non-service connected cases, and in the main must ultimately be paid for by the veteran, himself, as a taxpayer.

4. An unrealistic policy of indiscriminate provision of medical service and of hospital construction has been pursued without regard to local or regional facilities already in existence or to ability to provide the necessary trained personnel.

President Eisenhower, as did his predecessor, is trying to produce what the Courier-Journal calls "a definite and realistic policy of veterans' care by the Veterans Administration." His efforts will fail, however, unless he has adequate support at the grass roots level.

The Courier-Journal, in a recent editorial, said: "The remedy lies in the hands of Congress . . . So far the executive branch alone has carried the fight for economy, fairness and sound practice in

the general interest. Congressmen have given an eager ear to the veterans lobby. They have uproariously overridden presidential vetoes. There was the typical case some three years ago, when President Truman spoke out sharply against a bill increasing veterans' benefits by 112 million dollars—and the House shouted it to passage by 354 to 0."

It is evident that solution of this problem depends on our representatives in Congress hearing a clear call from their constituents that the time for the exercise of common sense is here.

As physicians, we have a primary interest in the problem. We are aware of the dangers embodied in what Edward J. McCormick, M.D., A.M.A. President, describes as evolution of "a chain of federally-operated medical super-markets." We should speak out by writing our congressmen encouraging them to support President Eisenhower's efforts at economy and wisdom in the Veterans Administration program.

As citizens who occupy positions of leadership in our communities, we should make a serious effort to acquaint those with whom we come in contact with the importance of this problem to them—as taxpayers and citizens.

As veterans, and the percentage of physicians who are not is small, we can do much within the framework of the American Legion, the Veterans of Foreign Wars and other veteran groups to which we belong. If we do not belong, we should do so. Because of the important voice in veterans' affairs which these organizations have, it is necessary for every veteran to belong and participate, lest the best interests of the veteran, himself, be ill-served. We can do much to further a sound position by these bodies.

In a nutshell, if current efforts at a more intelligent approach in the Veterans Administration are to bear fruit, they must have the support of every intelligent, thinking American.

IS MEDICAL PAYMENT BY THIRD PARTIES INCREASING?

A recent study by the Connecticut Hospital Association to ascertain the sources of payment for hospitalization in that state reveal some interesting figures which rather clearly indicate the current trend in budgeting the costs of serious illness. The study analyzed cases and patient days in the state's 34 general hospitals for the year ending September 30, 1952.

Significant in the study was the fact that only 15 per cent of patient days in Connecticut's community hospitals were paid for by the patients without reimbursement from some source such as insurance. When this is compared with the obvious fact that thirty years ago almost all of these costs would fall directly on the patient at the time of his illness, it demonstrates that a remarkable shift in method of payment for hospitalization has been taking place in recent years.

Blue Cross, which is represented in the state by the Connecticut Hospital Service, absorbed the costs of 50 per cent of the cases surveyed and accounted for 45.5 per cent of the patient days. Commercial insurance carriers paid 24.5 per cent of the total hospital charges in both categories.

While not all states have as yet progressed as far in the voluntary health insurance coverage as Connecticut, the study's report that 74.5% of the cases in the general hospitals were paid for through this instrument is impressive. It gives the lie, at least as far as hospitalization is concerned, to the claims that voluntary insurance programs are unable to meet the public need.

We have no break-down on the 15 per cent which were paid for out of the patients' current funds or accumulated reserve, but undoubtedly a substantial portion represented people who at their own choice preferred to personally assume the risk of hospitalization costs.

The growing importance of a third party in the financial aspects of hospitalization is, at any rate, clearly shown to be a trend that cannot be overlooked by students of financing the costs of illness, although not yet so far advanced, a similar pattern for payment of physicians' fees is emerging. That there are developing within the framework of the American tradition of freedom of choice is a happy circumstance for the people. Preservation of their privilege to choose the method by which they budget illness costs and to choose where and by whom their care shall be provided is something which can be done. The Connecticut study brings this home.

An interesting footnote is provided by the survey's revelation that only 1.5 per cent of the cases were paid for through city and town welfare budgets. As in studies elsewhere, these cases accounted for a somewhat disproportionate amount of patient days, representing 2.5 per cent of the total in this category.

Whichever figure is used, however, it is sufficiently low to indicate that in all probability voluntary insurance is providing even the lowest income groups with a means of budgeting hospitalization costs without the necessity of becoming public charges.

President's Page

Honest publicity is the factual reporting of events. Scientific medicine receives its fair share of such news distribution. Never before were so many people interested in science and its fringe topics. In time of need these people place their confidence in scientific treatment and turn to the physicians as its distributor. With such a fertile field, our public relations should be of the best.

All of us know that such a pleasant state does not exist. Some of it is our fault. We sometimes compare public relations with publicity and shun the former as for years many avoided any publicity at all as unethical. Public relations, however, are entirely different. They deal with our acts and the interpretations of our intentions. To earn a favorable interpretation the fairness of our conduct must be self-evident at all times.

Most of the unfavorable attitude towards our profession, however, has been the result of deliberate, one-sided, unfair and vicious bureaucratic propaganda. Honest people reach improper conclusions because they have only half truths and untruths upon which to form their opinions. Even a press which wants to be fair is often handicapped by inadequate information.

Our association has rightfully expended its energies towards protecting the health of the citizens of our commonwealth. The essential projects have been implemented. Few, if any, major activities remain to be initiated at this time. It might be well, therefore, to consolidate our gains by making better public relations our big objective this year.

Familiarity more often breeds agreement than contempt. Let us get better acquainted with the members of the local press, the churches, the service clubs, nursing organizations, pharmacists, and our own colleagues. With mutual respect engendered by such contacts our problems can be solved and a larger field of service opened to us.



PRESIDENT

ORGANIZATION SECTION

Full KSMA Participation Urged in Diabetes Detection Drive

Full participation in Kentucky's 1953 Diabetes Detection Drive by all K.S.M.A. members during the week of November 15-21 is being requested by the Association's Diabetes Committee, under the chairmanship of Carlisle Morse, M. D., Louisville.

Each physician is asked to obtain a free supply of testing materials through his county medical society diabetes committee chairman and to give free urine sugar tests to all persons requesting them during the week of the campaign. The state-wide drive is sponsored by K.S.M.A. in cooperation with the American Diabetes Association during National Diabetes Week.

Dr. Morse reports that more than 90 county medical societies have indicated their support of this physician-directed, non-fund raising campaign by submitting the names of their diabetes committee chairman, each of which has received full information on the program and its purposes.

"The discovery of the unknown diabetic, of which there are an estimated one million in the nation today, is a public service program which can bring much satisfaction to the physician," Dr. Morse said. "It is nothing short of a life saving program. That it has been undertaken by doctors themselves on the national, state and local level is something of which we may well be proud. It calls, however, for the whole hearted support of the individual KSMA member.

"In our first two drives, it is estimated that in excess of 300 previously undetected cases of diabetes were discovered in Kentucky," Dr. Morse continued. "Despite shortcomings of reports from a few of the counties, it is evident that this activity has been highly productive and is deeply appreciated by the lay public. With wider awareness by the people and growing support from the profession, the committee anticipates that we will again show gains over our previous drive results."

The Diabetes Detection Drive was first instituted as a K.S.M.A. project in 1951. Last year more than 55,000 clintests were distributed gratuitously to Kentucky physicians who provided the public with over 30,000 free urine sugar tests during the drive. Approximately

600 of these tests were reported as positive and subsequent follow-ups detected approximately 200 previously unknown diabetics. The Diabetes Committee anticipates that this year's drive will produce higher totals.

Other members of the Diabetes Committee of the Association in addition to Dr. Morse, are Herald K. Bailey, M.D., Ashland; Charles B. Billington, M.D., Paducah; George N. Burger, M.D., Covington; Guinn S. Cost, M.D., Hopkinsville; Marcus A. Coyle, M.D., Springfield; Frank H. Moore, M.D., Bowling Green; Franklin B. Moosnick, M.D., Lexington; William R. Parks, M.D., Harlan; H. E. Titsworth, M.D., Clinton, and L. A. Wahle, M.D., Shelbyville.

County Officers to Meet April 15, 1954 in Lexington

Plans are now being made for the Fourth Annual County Society Officers Conference, which will be held at the Phoenix Hotel in Lexington, Thursday, April 15, 1954. G. Y. Graves, M. D., Bowling Green, KSMA president, announced late in August.

Subjects to be treated at the 1954 conference were selected by County officers and Committeemen attending the 1953 session, when they were asked to indicate on a questionnaire topics of greatest and most pressing interest.

Men of national reputation, specialists in their respective fields of organized medical activity, will give the program, President Graves said. It was indicated that the 1954 conference should be of unusual interest value to county officers and county and state committee workers.

Indigent Medical Care Survey Approaches Completion

A survey of medical and hospital care provided to the indigent people in Kentucky is approaching completion, according to a report by Gaithel L. Simpson, M.D., Greenville, chairman of the Kentucky State Medical Association Committee on Medical Service, which is conducting the study.

The purpose of the survey is to ascertain the manner in which medical care is now provided to needy people in the state. It aims to get a factual picture of what city and county govern-

ments, individual charity and other sources do to extend hospitalization and medical care to the indigent.

Thirteen counties, scientifically selected by an independent agency employed by the Committee on Medical Service, and giving a representative cross-section of the state, were designated by the Committee for on-the-spot analysis, to include interviews with county judges, welfare agencies, hospitals, physicians and other persons or agencies playing a part in giving medical care to the indigent.

In addition to these specific county studies, questionnaires have been sent to fiscal courts in all counties and to all general hospitals in the state. State-wide programs which may in part affect indigent care are also being examined.

The work done in the 13 selected counties under the committee's direction, was carried out by a survey team composed of members of the K.S.M.A. Headquarters Staff and the American Medical Association Council on Medical Service staff. The latter were provided to K.S.M.A. on a loan basis for use in collecting the facts.

"Because some of the information required to make the study fully accurate has not been immediately available, and there remains a big task in evaluation of the facts assembled, it may be some time before this project of the Committee is concluded," Dr. Simpson said. "Inclusion of figures on gratuitous medical care provided by physicians in the 13 counties, for example, has required their keeping special records over a sample period. Some of these reports are still coming in.

"The excellent cooperation which the committee and its representatives have received in all counties, especially from the medical profession, indicates wide-spread interest in the indigent care problem. The committee anticipates that the completed study will reflect this interest by affording a valuable appraisal of the current situation."

AMA PR Institute Held in Chicago, Sept. 2-3

The American Medical Association's Second Public Relations Institute was held at the Drake Hotel in Chicago September 2 and 3, with an estimated attendance of over 300 public relations employees and public relations chairmen of county and state medical societies.

David R. Cox, M.D., Chairman of the KSMA Public Relations Committee, headed a delegation of four Kentuckians at the meeting, the

others being Jean Clos, executive secretary of the Jefferson County Medical Society, Joseph P. Sanford, executive secretary of K.S.M.A. and John Guy Miller, K.S.M.A. field secretary.

The AMA Public Relations Department states that it will send digests of the proceedings at this two-day workshop meeting to qualified persons requesting it of them.

New Draft Call Not Forseen

No additional draft calls for physicians will be placed against the Selective Service System by the President for the next 12 months, believes the National Advisory Committee to Selective Service.

As the result of the August draft call, and the increased number of volunteers, a sufficient number of physicians has been commissioned to meet the needs of the armed forces for the immediate future.

New Jewish Hospital Dedicated By Oveta Culp Hobby

Mrs. Oveta Culp Hobby, Secretary of the United States Department of Health, Education and Welfare, helped to dedicate the new, partly constructed Jewish Hospital in Louisville September 13, at the cornerstone laying ceremonies at Brook and Chestnut streets.

In her address at the dedication, Mrs. Hobby praised the efforts of those who had made the project possible, and said, "This hospital will set an example for other committees to establish." She stressed the importance of the affiliation of the new hospital with the University of Louisville School of Medicine, pointing out that "such a relationship was essential for producing well trained physicians."

Others on the speakers platform include: C. Howe Eller, M. D., director of the City-County Board of Health, J. Murray Kinsman, M. D., dean of the U. of L. School of Medicine, Senator John Sherman Cooper, and Mark Ethridge, Louisville newspaper publisher. Messages were read from President Dwight Eisenhower and Senator Earle Clements.

Mrs. Hobby and Edgar M. Bottigheimer, president of the Jewish Hospital Association, sealed the cornerstone with mortar as about 500 people looked on at the hospital site. The new hospital will be part of the University of Louisville Medical Center, which includes General Hospital, Children's Hospital, and the University of Louisville School of Medicine.

Technical Exhibitors, Members, Thanked for Cooperation

The Committee on Technical Exhibits wants to express its sincere appreciation both to the technical exhibitors, who, through rentals paid for booth space at the Annual KSMA Meeting, helped to finance the sessions; and to the attending members for their splendid support of the exhibits, said Carlisle R. Petty, M. D., Louisville, chairman.

Growing cooperation between the membership and the technical exhibitors acts as a stimulus for a better KSMA Annual Meeting each year, and contributes to the goal of establishing KSMA annual sessions as among the best of the smaller State Associations, believes Dr. Petty.

"It costs each company many hundreds of dollars to exhibit with us at the KSMA Annual Meeting each year and the technical exhibitors willing to return can be justified only by the amount of interest KSMA membership shows at the booths," said the chairman, Dr. Petty.

Following is the list of exhibitors:

A. S. Aloe Co.
Ames Company, Inc.
Ayerst, McKenna & Harrison, Ltd.
Bilhuber-Knoll Corporation
Blue Cross-Blue Shield
The Borden Company
Burroughs Wellcome & Company
Camel Cigarettes
Campbell Associates
Central Dairy Council
The Central Pharmacal Company
Chicago Pharmaceutical Company
Ciba Pharmaceutical Products, Inc.
The Coca-Cola Company
Dick X-Ray Company
Doak's Surgical Supplies, Inc.
Doho Chemical Corporation
H. J. Fischer and Company
C. B. Fleet Company, Inc.
General Electric Company
Guild of Prescription Opticians of Kentucky
John Hancock Mutual Life Insurance Company
Hoffman LaRoche, Inc.
Kay Surgical Supplies, Inc.
The Lanier Company
Lanteen Medical Laboratories, Inc.
Lederle Laboratories Division
Eli Lilly & Company
Louisville Surgical Supply Company
M & R Laboratories
J. A. Majors Company
The S. E. Massengill Company
McNeil Laboratories, Inc.

Mead Johnson & Company
The Medical Protective Company
The William S. Merrell Company
The C. V. Mosby Company
The National Drug Company
Ortho Pharmaceutical Corporation
Parke, Davis & Company
Chas. Pfizer & Company
Phillip Morris & Company
A. H. Robins Company, Incorporated
Sandoz Pharmaceuticals
Schering Corporation
Sealy Mattress Company
G. D. Searle & Company
Sharp & Dohme, Incorporated
Smith, Kline & French Laboratories
E. R. Squibb & Sons
Templar-Thelen X-Ray Company
Theodore Tafel
Tru-Fit Surgical Appliance Company
The Upjohn Company
VanPelt & Brown, Inc.
U. S. Vitamin Corporation
Winthrop-Stearns, Inc.
The Max Woche & Son Company
Wyeth Laboratories

John Huff Represents U. of L. at Student AMA Meeting

John Huff, president of the University of Louisville Student AMA organization, was chief delegate to the national annual meeting of the Student American Medical Association, held at the Edgewater Beach Hotel, Chicago, in June.

Jim Marvel, vice president of the University of Louisville chapter, and Tom Heavern, representative of the freshman class, attended as observers along with Chuck McGaff, an elected representative of the national executive council.

At the three day meeting the student delegates discussed, among many topics, the seriousness of the falling number of well qualified applicants in medical schools and the proposed plan of organizing programs to interest more high school students in becoming physicians.

Another topic was the value of the preceptorship system as part of the medical student's curriculum. This method requires students between their junior and senior years to learn the routine of a physician's practice by assisting him and working under his tutelage. The preceptorship method of study is reported to be a successful, integrated part of the school program in medical schools in Texas, and has been accepted in many parts of the country.

AMA Sec'y. Hurt in Car Accident

The Secretary and General Manager of the American Medical Association, George F. Lull, M.D., suffered severe injuries in an automobile accident on returning to Chicago from Louisville where he attended the funeral of the late Elmer L. Henderson, M.D., world medical leader.

Ernest B. Howard, M.D., Assistant Secretary of the AMA, has temporarily assumed some of the duties of Dr. Lull, until he completely recovers from his injuries. Because of the unexpected accident, Dr. Lull was forced to cancel his trip to Europe for the First World Conference On Medical Education and the Seventh General Assembly of the World Medical Association.

Industrial Medicine Book Available For Reference

KSMA members practicing industrial medicine and surgery will be interested to learn that a copy of the full proceedings of a "Symposium on Industrial Medicine" held at the Harvard School of Public Health this year, is available for reference in the headquarters office of the Kentucky State Medical Association.

To the physician engaged in industrial medicine this volume offers new concepts of ideas with which he is already familiar, and it may serve as a pattern for programs to stimulate general practitioners to take a more active part in industrial medicine. Physicians interested in reading the "Symposium on Industrial Medicine" are encouraged to write to the KSMA headquarters office for it, or come by in person.

Handicapped Children's Conference Features Chicago Surgeon

The principal address at the Kentucky Conference on Handicapped Children, October 22 and 23, in Louisville, will be given by Paul B. Magnuson, Chicago, nationally famed surgeon, who is president of the new Rehabilitation Institute of Chicago.

Outstanding Kentucky specialists, representatives of official and voluntary agencies, and the general public will participate in the conference to plan a unified program for the handicapped children in the state. All sessions of the two day meeting will be held at the Seelbach Hotel.

As a climax to a distinguished career in medicine and public service for 40 years, Dr.

Magnuson is devoting much of his time to the Chicago Rehabilitation Institute which is a non-profit organization designed to put people back into industry on a full competitive basis with those without disability. A medical officer in World War I, he served as medical director of the Veterans Administration in Washington from 1941 to 1946, and in 1951 was chairman of the Presidential Commission on the Health Needs of the Nation.

6th District Meets at Glasgow

Approximately 40 physicians attended the Sixth Councilor District Meeting at the Glasgow Country Club, Glasgow, Kentucky, for which the Barren County Medical Society was host, August 11, 1953. L. O. Toomey, M.D., Councilor, reported.

J. Carter Moore, M.D., Franklin, Kentucky, presided at the after dinner program which featured D. Woolfolk Barrow, M.D., Lexington, and M. C. Darnell, M.D., Lexington, as speakers. "Peripheral Vascular Diseases" was the subject of Dr. Barrow's speech, and Dr. Darnell spoke on "Expanding Medical Education in Kentucky."

Medical Education Establishes New Record in 1953

The total number of students enrolled and graduated in approved medical schools reached an all time high in 1953 and established a new record for the fifth consecutive year, it was disclosed in the 53rd annual report on medical education, prepared by the Council on Medical Education and Hospitals of the AMA.

Enrollment figures showed 2.3 per cent more students than in 1951-52, and the number of students graduated exceeded last year's record by 4.4 per cent. There was a slight decline in the actual number of applicants to medical school, of which a major factor is the disappearance of the large number of veterans who completed their premedical training following the end of World War II.

A fact which is causing serious concern among medical educators is the sharp decrease in the number of applicants with superior academic records, part of which is due to increasing competition from other professional fields.

The report also disclosed that physicians are aware that medical education is a continuous process and that it is their responsibility to keep abreast of advances in medicine. During 1952-53, 64,608 physicians attended 1,341 post-graduate courses.

R. Haynes Barr Memorial Fund Reaches Total of \$2,039

The R. Haynes Barr Memorial Fund for the creation of a medical library at the Owensboro-Daviess County Health Center in memory of the late president of the Kentucky State Medical Association, who passed away May 5, 1953 has now reached a total of \$2,039.

Gifts for the library fund, which were requested instead of flowers, have been received from all over the United States. Many contributions were made to the memorial by county medical societies and civic clubs throughout the commonwealth.

Mrs. Barr reports that the fund is still growing. She asked that the following expression of thanks be communicated to the Kentucky State Medical Association membership through the Journal:

"It is with a deep feeling of appreciation that I write to the physicians of Kentucky to express my sincere thanks to them for making one of the last wishes of my husband come true. From your most generous contributions to the R. Haynes Barr Memorial Library Fund, the Owensboro-Daviess County Health Center now has a creditable medical library. At this time, August 18th, \$1,934 has been given to make Haynes' wish for a medical library at our new health center become a reality."—Mrs. Helen Barr.

47th Annual SMA Meeting Convenes in Atlanta, Oct. 26-29

The Forty-Seventh Annual Meeting of the Southern Medical Association will be held this year in Atlanta, Georgia, October 26-29, with the Fulton County Medical Society, Atlanta, acting as host for physicians of the South who will attend this general medical meeting, according to C. P. Loran, secretary-manager of the Southern Medical Association.

Outstanding authorities will present papers dealing with the latest research and discoveries in all fields of medicine, and programs will be offered to challenge the interest of each attending physician.

The Atlanta City Auditorium has been secured for the meetings, a centrally located building within easy reach of the downtown hotels. There under one roof will be housed all Section Meetings, General Session, Scientific and Technical Exhibits, and Registration. Recreational activities will also be offered.

A. Clayton McCarty, M. D., Louisville, is councilor for Kentucky.

All requests for hotel reservations should be addressed to the Housing Bureau, Southern Medical Association, 801 Rhodes-Haverty Building, Atlanta 3, Georgia.

Dr. Bower Attends AMA Conference

Daniel L. Bower, M.D., Barbourville, chairman of the KSMA Committee on Veterans' Medical Care, attended a national conference at AMA headquarters, September 1, to review the action of the House of Delegates last June with respect to Veterans' Medical Care.

The representatives at the meeting planned specific programs for the consideration and implementation of the action of the AMA House of Delegates. The conference helped to crystallize the program for activation of AMA policy with respect to medical care of veterans.

Medical "Factbook" Distributed

Because of the broad interest in medical education, the Committee on Medical Service felt the information booklet, "Factbook On Medical Education" containing quick references on enrollments, financial support, and medical faculties, should be made available to all members, said Gaithel Simpson, M.D., chairman.

Information contained in the "Factbook" was compiled from the 52nd Annual Report on Medical Education in the United States, 1951-52. This survey was conducted by the Council on Medical Education and Hospitals of the American Medical Association.

AMA Clinical Session to Meet

The seventh annual Clinical Session of the American Medical Association will be held in St. Louis, Missouri, December 1-4, 1953 at the Jefferson Hotel.

This year's scientific program has been designed to present the general practitioner with the latest developments and newest techniques in medicine. In addition color television, motion pictures, lectures, and technical exhibits will be presented.

National Guard Needs Physicians

A number of vacancies, the majority of which are in units in Louisville and Lexington areas, now exists for qualified medical and dental officers in the Kentucky National Guard.

These positions carry ranks from first lieu-

tenant to major. If interested, communicate with Major General J. S. Lindsay, Adjutant of Kentucky, The Capitol, Frankfort, Kentucky, and a representative from his office will discuss the matter in more detail.

President Names Appointees For New KSMA Committees

KSMA committee appointments by the president for the 1953-54 year have been announced by J. Duffy Hancock, M.D., Louisville, new president.

Committees appointed by the Council will be listed in the November Journal. Since the information was not available at the present time, they could not be carried in this issue.

It was pointed out that every effort was made to announce the personnel of the committees in order that various groups may continue with programs already underway and go ahead with new programs.

The 1953-54 presidential committees are as follows:

Standing Committees

Committee on Arrangements

Clyde Sparks, Ashland, Chairman
Norman Adair, Covington
E. H. Baker, Louisville
Elmer S. Maxwell, Lexington
Robert L. Reeves, Paducah

Committee On Scientific Assembly

J. Duffy Hancock, Louisville, Chairman
Clyde Sparks, Ashland
T. O. Meredith, Harrodsburg, 3 years (term expires 1956)
Charles C. Rutledge, Pikeville, 2 years (term expires 1955)
Carl W. Kump, Covington, 1 year (term expires 1954)

Committee to Study the Constitution and By-Laws

Ernest C. Strobe, Lexington, Chairman
Cooley L. Combs, Hazard
Jacob M. Mayer, Mayfield
Wyatt Norvell, New Castle
William L. Woolfolk, Owensboro

Kentucky Committee for Contributions to American Medical Education Foundation

Raymond Holbrook, Louisville, Chairman
M. O. Crowder, Owensboro
J. Gant Gaither, Hopkinsville
M. J. Henry, Louisville
Murray Kinsman, Louisville
Winfrey P. Blackburn, Frankfort

Harold Parker, Maysville
Edward H. Ray, Lexington
Wendell V. Lyon, Ashland
James A. Ryan, Covington
Keith Crume, Bardstown

Committee on Corporate Practice of Medicine

Clark Bailey, Harlan, Chairman
Robert E. Reichert, Covington
Ward Bushart, Fulton
James S. Forbes, Madisonville
Coleman Johnston, Lexington
Michael J. Henry, Louisville

Diabetes Committee

Carlisle Morse, Louisville, Chairman
George N. Burger, Covington
Frank H. Moore, Bowling Green
Herald K. Bailey, Ashland
Franklin B. Meosnick, Lexington
Charles B. Eillington, Paducah
William R. Parks, Harlan
Guinn S. Cost, Hopkinsville
Marcus A. Coyle, Springfield
Stanley Simmons, Louisville
L. A. Wahle, Shelbyville

Committee on Emergency Medical Service

Orion L. Higdon, Paducah, Chairman
John G. Coleman, Maysville
J. Gant Gaither, Hopkinsville
Guthrie Y. Graves, Bowling Green
Thomas Van Zandt Gudex, Louisville
Leland E. Payton, Lynch
W. Mountjoy Savage, Maysville
Charles Wood, Louisville

Committee On Hospitals

Francis Massie, Lexington, Chairman
W. O. Johnson, Louisville
Richard J. Rust, Newport
Charles B. Wathen, Owensboro
Dana Snyder, Hazard

Insurance Committee

John T. Bate, Louisville, Chairman
Arthur B. Barrett, Lexington
J. A. Bishop, Jeffersontown
William McCormack, Bowling Green
Robert M. Sirkle, Martin

Kentucky State Advisory Committee To Selective Service

A. Clayton McCarty, Louisville, Chairman
J. Duffy Hancock, Louisville, Vice-Chairman
Charles B. Billington, Paducah
Glenn U. Dorroh, Lexington
R. Arnold Griswold, Louisville
L. O. Toomey, Bowling Green
Marcus Randall, D.D.S., Louisville, Sub-Chairman
Frank W. Jordon, D.S.S., Louisville

F. E. Hull, D.V.M., Lexington, Sub-Chairman
Lula B. McClain, R.N., Louisville, Sub-Chairman
O. B. Coomer, D.D.S., Louisville

K.S.M.A. Dental Committee

Thomas J. Crume, Owensboro, Chairman
Charles Bryant, Louisville
Lonnie Howerton, Jr., Olive Hill
James Rich, Lexington
Thomas B. Stone, Mayfield
Roy G. Wilson, Campbellsville

K.S.M.A. Pharmacy Committee

Matthew C. Darnell, Lexington, Chairman
George Archer, Prestonsburg
Carlisle Dotson, Russellville
Harry H. Hartleb, Drakesboro
Travis Pugh, Bowling Green
Stanley Smith, Louisville
James M. Stevenson, Brooksville

K.S.M.A. Physicians Placement Committee

Ralph D. Lynn, Chairman (Third District)
First District—J. Ewing Dunn, Paducah
Second District—F. Hayes Threlkel, Owensboro
Fourth District—Keith Crume, Bardstown
Fifth District—G. L. Dyer, Buechel
Sixth District—Jesse Funk, Bowling Green
Seventh District—John T. Walsh, LaGrange
Eighth District—Joseph H. Humpert, Covington
Ninth District—William Dye, Paris
Tenth District—Allen E. Grimes, Lexington
Eleventh District—Thomas E. Averitt, Winchester
Twelfth District—A. L. Cooper, Somerset
Thirteenth District—Paul E. Holbrook, Ashland
Fourteenth District—Ralph Allen, Pikeville
Fifteenth District—Charles B. Stacy, Pineville

Board of Directors of McDowell Memorial Foundation

Charles A. Vance, Lexington, Chairman, 2 years (term expires 1954)
Irvin Abell, Louisville, 3 years (term expires 1955)
Orion L. Higdon, Paducah, 3 years (term expires 1955)
Thomas O. Meredith, Harrodsburg, 3 years (term expires 1955)
E. M. Howard, Harlan, 2 years (term expires 1954)
Russell Starr, Glasgow, 2 years (term expires 1954)
Laman A. Gray, Louisville, 1 year (term expires 1953)
George McClure, Danville, 1 year (term expires 1953)

Emil Novak, Baltimore, Maryland, 1 year (term expires 1953)

Committee on Medical Education

Lawrence T. Minish, Louisville, Chairman
Harry Andrews, Louisville
Herbert L. Clay, Jr., Louisville
Allen L. Cornish, Lexington
Joseph E. Hamilton, Louisville
Robert Lich, Jr., Louisville
Garnett J. Sweeney, Liberty
John C. Quertermous, Murray

Committee to Study Medical Examiner System

E. S. Maxwell, Lexington, Chairman
John D. Allen, Jr., Louisville
Frank A. Bechtel, Central City
W. C. Gettelfinger, Louisville
Benton B. Holt, Ashland
Murray Kinsman, Louisville

Medical School Advisory Committee (appointed in July of each year)

Karl Winter, Louisville, Chairman, 3 years (term expires 1955)
Clark Bailey, Harlan, 3 years (term expires 1956)
J. T. Gilbert, Jr., Bowling Green, 3 years (term expires 1956)
W. Vinson Pierce, Covington, 3 years (term expires 1956)
C. C. Howard, Glasgow, 3 years (term expires 1955)
Charles A. Vance, Lexington, 3 years (term expires 1955)
George McClure, Danville, 2 years (term expires 1954)
J. Vernon Pace, Paducah, 2 years (term expires 1954)
G. L. Simpson, Greenville, 2 years (term expires 1954)

Committee on Nurse Training

Winfrey P. Blackburn, Frankfort, Chairman
John W. Armstrong, Berea
Warren Henry Asman, Louisville
Chris Jackson, Danville
William McCormack, Bowling Green
Everett Blair, Morehead

Committee on School Health

Daryl P. Harvey, Glasgow, Chairman
Wilbur R. Houston, Erlanger
W. E. Hoy, Ashland
H. B. Mack, Pewee Valley
Wyatt Norvell, New Castle
Walter L. O'Nan, Henderson
Carl Pigman, Whitesburg
Charles P. Salyer, Eurnside

Professional Relations Committee

Charles A. Vance, Lexington, Chairman
Hugh L. Houston, Murray

Sam A. Overstreet, Louisville
 Clark Bailey, Harlan
 Guthrie Y. Graves, Bowling Green

Committee on Rural Health

Wyatt Norvell, New Castle, Chairman
 J. Auldin Bishop, Jeffersontown
 Philip Carter, Louisa
 Donald L. Graves, Frenchburg
 Daryl P. Harvey, Glasgow
 D. G. Miller, Jr., Morgantown
 Joseph R. Miller, Benton
 Walter L. O'Nan, Henderson
 Carl Pigman, Whitesburg
 Sam A. Rector, Munfordsville
 George H. Riley, Erlanger
 Ben F. Roach, Midway
 F. A. Scott, Madisonville
 E. P. Stevens, Beaver Dam
 James M. Stevenson, Brooksville

Veterans Committee

Daniel L. Bower, Barbourville, Chairman
 David Cox, Louisville
 John Dickinson, Glasgow
 Thomas G. Hobbs, Lexington
 Robert W. Robertson, Paducah
 J. Allen Vesper, Covington

World Medical Association

Winston Bloch, Louisville
 William Carl Grant, Winchester, Chairman
 Ralph L. Gullett, West Liberty
 Conrad H. Jones, Murray
 Thorton Scott, Lexington
 Condit B. Van Arsdall, Harrodsburg

Advisory Committees on Medical Care

Advisory Committee on Flood Banks

Marion F. Beard, Louisville, Chairman
 Burr Atkinson, Campbellsville
 Winfrey P. Blackburn, Frankfort
 Hubert C. Jones, Berea
 Dana Snyder, Hazard
 H. C. Burkhart, Harlan
 Samuel Adams, London
 W. Thomas McElhinney, Covington
 John B. Floyd, Jr., Lexington
 David Y. Keith, Paducah
 W. Mountjoy Savage, Maysville
 A. J. Miller, Louisville

Advisory Committee on Cancer

****Karl Winter, Louisville, Chairman**

****Richard J. Rust, Newport**

Richard R. Crutcher, Lexington
 B. B. Holt, Ashland
 Chris Jackson, Danville

****Indicates committee members who are to serve on the Cancer Coordinating Council.**

Jesshill Love, Louisville
 George A. Sehlinger, Louisville
 Ernest C. Strode, Lexington

Advisory Committee on Crippled Children

Charles Wood, Louisville, Chairman
 J. E. Bickel, Owensboro
 Daniel G. Costigan, Louisville
 Richard T. Hudson, Louisville
 Franklin B. Moosnick, Lexington
 Ruel T. Routt, Sonora

Advisory Committee on General Practice

M. R. Cronen, Louisville, Chairman
 J. Auldin Bishop, Jeffersontown
 R. E. Davis, Central City
 Roy E. Jones, Louisville
 Travis Pugh, Bowling Green
 Keith Smith, Corbin

Advisory Committee on Industrial Medicine and Surgery

Gradie R. Rowntree, Louisville, Chairman
 John T. Bate, Louisville
 Jack Dick, Louisville
 W. Vernon Lee, Covington
 E. Aulden Terry, Louisville
 Burton A. Washburn, Paducah

Advisory Committee on Mental Hygiene and Mental Institutions

Louis M. Foltz, Louisville, Chairman
 Spafford Ackerly, Louisville
 Theodore L. Adams, Lexington
 Arthur Casey, Louisville
 Frank L. Duncan, Monticello
 Billy K. Keller, Louisville
 Robert C. Smith, Newport

Advisory Committee on Obstetrics

Robert F. Long, Corbin, Chairman
 George G. Greene, Lexington
 Charles N. Hall, Versailles
 William I. Huesing, Newport
 Robert Monroe, Louisville
 W. H. Parker, Owensboro

Advisory Committee on Pediatrics

Harry S. Andrews, Louisville, Chairman
 Alex J. Alexander, Lexington
 Guy C. Cunningham, Ashland
 Daniel B. McIlvoy, Jr., Bowling Green
 Robert N. McLeod, Somerset
 F. Hayes Threlkel, Owensboro

Advisory Committee on Physical Therapy

R. T. Hudson, Louisville, Chairman
 J. E. Bickel, Owensboro
 Melvin Dean, Lexington
 Robert J. Hoffman, S. Fort Mitchell
 Harry Moody, Cynthiana
 James M. Riley, Jr., Louisville

Advisory Committee to Woman's Auxiliary

Karl Winter, Louisville, Chairman
 R. Ward Bushart, Fulton
 J. Farra Van Meter, Lexington

Other Convention Committees**Advisory Committee on Tuberculosis**

*George W. Pedigo, Louisville, Chairman
 *Hugh L. Houston, Murray
 E. Rudolph Gernert, Louisville
 Joseph H. Humpert, Covington
 B. F. Shields, Shelbyville
 L. O. Toomey, Bowling Green

Other Advisory Committees**Advisory Committee on Blue Cross**

Sam A. Overstreet, Louisville, Chairman
 Orion L. Higdon, Paducah
 James E. Hix, Owensboro
 Gabe A. Payne, Jr., Hopkinsville
 John J. Sonne, Bardstown
 W. R. McCormack, Bowling Green
 Thomas Leonard, Frankfort
 C. Walker Air, Ludlow
 William H. Cartmell, Maysville
 Rankin C. Blount, Lexington
 John C. Baker, Berea
 Lexlie Winans, Ashland
 Arthur M. Jester, Danville
 Lloyd Hall, Salyersville
 Willard M. Buttermore, Harlan

Advisory Committee on United Mine Workers Health and Welfare Fund

Carl H. Fortune, Lexington, Chairman
 C. D. Snyder, Hazard

Adam G. Osborne, Pikeville
 Charles R. Yancey, Hopkinsville
 George F. Brockman, Greenville
 Clark Bailey, Harlan
 Thomas V. Gudex, Louisville
 Alfred O. Miller, Louisville

Advisory Committee on Public Health

C. C. Howard, Glasgow, Chairman
 Cooley Combs, Hazard
 J. M. Dishman, Greensburg
 C. Howe Eller, Louisville
 C. B. Johnson, Greenup
 Robert B. Warfield, Lexington
 J. C. Woodall, Trenton

Committee on Scientific Exhibits

Everett L. Pirkey, Louisville, Chairman
 D. Woolfolk Barrow, Lexington
 Harold Gordon, Louisville
 Jesshill Love, Louisville
 William P. Humphrey, Sturgis
 W. Vernon Lee, Covington

Committee on Technical Exhibits

Carlisle R. Petty, Louisville, Chairman
 Clyde H. Foshee, Louisville
 Jesse Funk, Bowling Green
 Arthur T. Hurst, Louisville
 Arthur F. Shultz, Newport

Conference of Presidents and Other Officers of State Medical Association

G. Y. Graves, Bowling Green
Advisor to University of Louisville Medical School, Student A.M.A. Chapter
 John S. Llewellyn, Louisville

Because of a recent editorial in *Life Magazine* titled, "Watch It Doc," a Richmond, California physician cancelled his subscription and wrote the editors that he felt the time had come to remove *Life* from his waiting room after the magazine refused to make a retraction or correction of the article.

The Institute of Social Research, University of Missouri, the Arkansas State Nurses Association, and the Pennsylvania State Nurses Association, each received research grants recently from the American Nurses Association to be used for studies of nursing functions. The purpose of these studies is to find out why some

people go into nursing for a short period and others make it a lifetime career, and to attempt to discover factors for high or low morale among nurses.

The American Nurses Association Research and Statistics Unit has requested that the Bureau of Labor Statistics extend its "Occupational Wage Survey" series to include a study of salary data on hospital nursing positions in major U. S. cities. This step would involve additional budgetary appropriations which would require approval of the U. S. Department of Labor, the Bureau of the Budget, and the United States Congress.

News Items

John Calvin Weeter, M.D., recently resumed his practice of plastic and reconstructive surgery in Louisville, Ky. Dr. Weeter returned from service with the United States Air Force, having served as Chief of Plastic Surgery at Maxwell Field Air Base, Alabama.

Arthur L. Goodman, M.D., has announced that he is associated in general practice with his father, Arthur O. Goodman, M.D., in Louisville. Dr. Goodman was graduated from the University of Louisville School of Medicine in 1952, and interned at St. Joseph's Infirmary, Louisville.

Carroll H. Luhr, Jr., M.D., recently announced the opening of his office in Louisville, for the practice of Obstetrics and Gynecology. Dr. Luhr was graduated from the University of Louisville School of Medicine in 1946 and interned at St. Joseph's Infirmary, Louisville. He completed residencies at Louisville General Hospital, St. Joseph's Infirmary, and the Baptist Hospital, Louisville, and served a four months fellowship at Louisville General Hospital. While a graduate student at the University of Louisville School of Medicine, Dr. Luhr was an instructor in Pathology.

John M. Holland, M.D., has gone into general practice at Stanford, Kentucky. Dr. Holland, a graduate of the University of Louisville School of Medicine in 1952, interned at St. Joseph's Infirmary, Louisville.

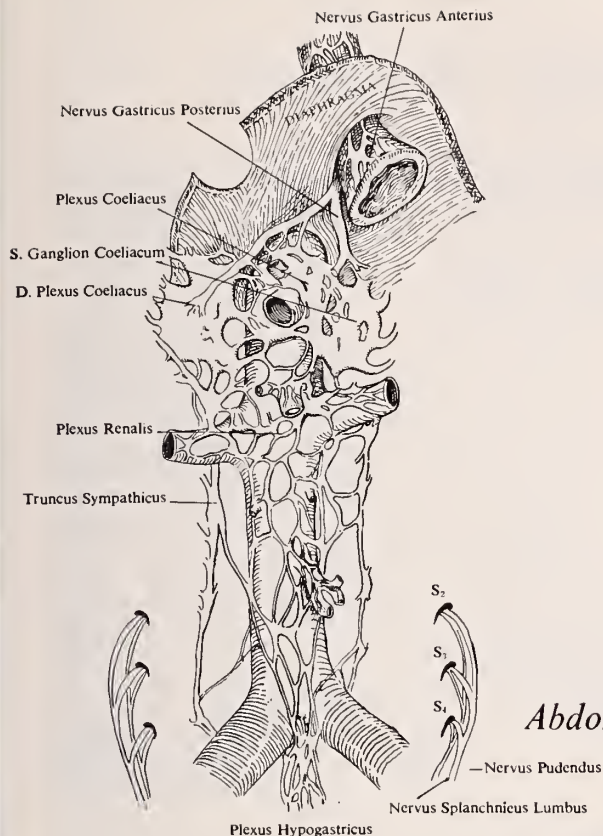
David J. Dukes, M.D., a graduate of the University of Louisville School of Medicine in 1952 has been recently appointed to the medical staff of Central State Hospital, Lakeland, Kentucky. Dr. Dukes interned at St. Joseph's infirmary, Louisville, and is a native of Idaho.

Giles L. Stephens, M.D., has opened an office at Lackey, Kentucky, in Floyd County. Dr. Stephens was graduated from the University of Louisville School of Medicine in 1952, and interned at St. Joseph's Infirmary, Louisville.

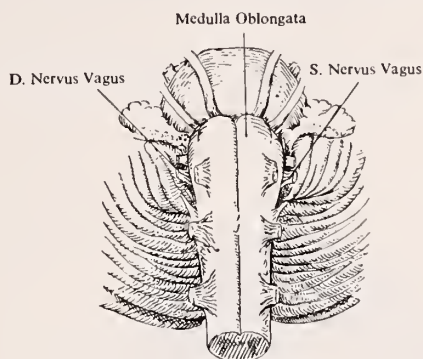
William E. Yancey, M.D., a graduate of the University of Louisville School of Medicine in 1952, is practicing industrial medicine with E. I. Dupont de Nemours Company, Jeffersonville, Indiana. Dr. Yancey interned at St. Joseph's Infirmary, Louisville.

Robert Howell, M.D., has announced the opening of an office for general practice at Frankfort, Kentucky. Dr. Howell interned at St. Joseph's Infirmary, Louisville, after graduating from the University of Louisville School of Medicine.

Pat Murphy, M.D., has gone into general practice at Lebanon Junction, Kentucky. Dr. Murphy, a graduate of the University of Louisville School of Medicine in 1952, interned at St. Joseph's Infirmary, Louisville.



Central origin of the vagus nerves (parasympathetic)



Abdominal autonomic plexus (sympathetic)

Control of Gastric Motility and Spasticity in Peptic Ulcer with Banthine®

"The need¹ for suppressing gastric motility and spastic states is . . . fundamental in peptic ulcer therapy. Since the cholinergic nerves are motor and secretory to the stomach and motor to the intestines, agents capable of blocking cholinergic nerve stimulation are frequently used to lessen motor activity and hypermotility."

Banthine² "has dual effectiveness; it inhibits acetylcholine liberated at the postganglionic parasympathetic nerve endings and it blocks acetylcholine transmission through autonomic ganglia."

It has been shown¹ to diminish gastric motility and secretion significantly as well as intestinal and colonic motility.

The usual schedule of administration in peptic ulcer is 50 to 100 mg. every six hours, day and night, with subsequent adjustment to the patient's needs and tolerance. After the ulcer is healed, maintenance therapy, approximately half of the therapeutic dosage, should be continued for reasonable assurance of nonrecurrence.

Banthine® (brand of methantheline bromide) is supplied in: Banthine ampuls, 50 mg.—Banthine tablets, 50 mg.

It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

1. Zupko, A. G.: Pharmacology and the General Practitioner, GP 7:55 (March) 1953.

2. McHardy, G. G., and Others: Clinical Evaluation of Methantheline (Banthine) Bromide in Gastroenterology, J.A.M.A. 147:1620 (Dec. 22) 1951.

SEARLE Research in the Service of Medicine

County Society Reports

McCRACKEN

The monthly business meeting of the McCracken County Medical Society was called to order September 16, 1953, with George Widener, M.D., presiding.

Winfield Stryker, M.D., W. H. England, M.D., and Joe Spaulding, M.D., were admitted to the society after having been approved by the Board of Censors. T. E. Ruff, M.D., was admitted by transfer from Cape Girardeau County Medical Society, Cape Girardeau, Missouri, after his application and letter of recommendation had been presented.

Letter of application for admission to the McCracken County Medical Society from Owen Brown, M.D., Wickliffe, Kentucky, was read and discussed. The discussion of this application was largely concerned with the idea of admitting anyone outside the county to membership. In regard to Dr. Brown's application, a motion was made by Eugene Blake, M.D., and seconded by C. M. Blanton, M.D., that the application be referred to the Board of Censors, that a letter to Bruce Underwood, M.D., be written for clarification of this particular situation, and that permission from his own inactive county society for active participation in this society be secured. The motion was carried.

Letters of application to the McCracken County Medical Society from Rex Holland, M.D., and B. N. Carle, M.D., were read and referred to the Board of Censors.

A discussion was opened by Dr. Widener concerning the advisability of forming a local county grievance committee. A motion was made by Walker Turner, M.D., and seconded by Keith Sloan, M.D., that a grievance committee be appointed on a local level and that this committee investigate all present and subsequent problems that may arise. Motion was amended by Eugene Blake, M.D., that this action be carried out only if approved by the State Committee. The amendment and motion were passed.

Discussion was opened concerning the addition of the new members of the society to the roster of names donating their time to the Red Cross Blood Bank. It was further suggested that the minutes be reviewed to determine whether or not we have an active blood bank committee. If this committee is not functioning, a new one is to be appointed and will contact Dr. Carle and the Red Cross to discuss the urgency of obtaining more blood for our community.

After some discussion, a motion was made by E. W. Jackson, M.D., that the county society go on record to indicate a willingness to cooperate fully with the American Diabetic Control Committee.

The floor was given to J. V. Pace, M.D., for a brief discussion of the present status of organized medicine and the ever pressing problems confronting the profession. He also discussed the advisability and the necessity of supporting the ten dollar raise in the KSMA dues. A motion was made by Dr. Sloan and seconded by Dr. Blanton that we instruct our delegates to support the proposed ten dollar raise. The motion was carried.

Appointments: Blood Bank Committee, J. V. Pace, M.D.; Grievance Committee: W. R. Johnson, M.D., R. M. Robertson, M.D., Eugene Sloan, M.D.

The meeting was adjourned.

M. W. Fowler, Jr., M.D., Secretary

SCOTT

The Scott County Medical Society held its monthly meeting on Thursday, September 10th, at the John Graves Ford Memorial Hospital in Georgetown, Ky. The following members were present: Doctors F. W. Wilt, C. R. Crutchfield, W. S. Allphin, E. C. Barlow, and H. V. Johnson.

Dr. H. T. Ransdell of Louisville, Ky., was a guest of the society.

After dinner at the Hospital the meeting adjourned to the Health Center where Dr. Ransdell showed a moving picture describing Cancer of the Lung. A round table discussion followed the picture with questions asked and answered by the essayist.

The meeting was adjourned.

H. V. Johnson, M.D., Secretary.

SHELBY-OLDHAM

The first of the fall meetings of the Shelby-Oldham Medical Society was held at the Stone Inn on September 17th with E. G. McMunn, M.D., as host. The meeting was called to order by the President, J. T. Walsh, M.D. The following members and guests were present:

H. T. Alexander, M.D.; George Perrine, M.D., S. B. May, M.D., J. T. Walsh, M.D., Wyatt Norvell, M.D., S. B. Houston, M.D., A. C. Weakley, M.D., W. P. McKee, M.D., M. D. Klein, M.D., B. F. Shields, M.D., A. D. Doak,

**It had to be good
to get where it is**



THE COCA-COLA COMPANY

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

M.D., B. B. Sleadd, M.D., H. B. Mack, M.D., H. H. Richeson, M.D., M. H. Skaggs, M.D., Don Chatham, M.D., Chas. Chatham, D.D.S., and C. C. Risk, D.D.S.

The Censor Committee presented the names of Don Chatham, M.D., and Chas. Chatham, D.D.S., for membership. They were elected. The president appointed a committee of Drs. Wahle, Richeson, and Doak to draw up resolutions on the death of W. T. Buckner and W. Harmon Nash.

At this time the meeting was turned over to Dr. McMunn, the host, who introduced the speaker of the evening, John D. Allen, M.D. Dr. Allen spoke on the use of the Chemical laboratory in private practice. Discussion followed.

Mrs. Ruth Lynch, secretary of the local Red Cross, and Mrs. M. D. Klein, the president, spoke on the need of more doctors for the Blood Bank. A plan was outlined where it was thought more donors could be secured. The meeting was adjourned.

C. C. Risk, D.D.S., Secretary

SIMPSON

A combined meeting of the Simpson County Medical Society and the County Board of Health at Dr. Moore's office in the Community Hospital, Tuesday on July 23rd, was called to order by Dr. N. C. Witt, Chairman, Board of Health, with the following members present: Doctors: Lamb, Witt, Moore, Bralliar, and Orsburn.

The first part of the program was devoted to the affairs of the Medical Society. Several communications were read, discussed and disposed of as follows:

Regarding the contacting of candidates for the State Legislature and get them to give serious consideration to and support legislation affecting health activities received unanimous favorable comment.

The Society expressed itself as being in favor of the present officers succeeding themselves i. e.: Doctors Carter Moore, president, and Roy Orsburn, secretary. Dr. L. F. Beasley was elected delegate to the State Medical Meeting and Roy Orsburn, M.D., alternate.

A letter was read urging members who had not paid their dues to do so.

The Society voted unanimously in favor of the Cancer Mobile Unit coming to Simpson County and hold a clinic. It instructed the secretary to write to Dr. Condict Moore, the Director, the action taken.

In reply to the letter suggesting a closer working and social relation between the local doctors and dentists was passed for further study.

In response to the request of Dr. Carlisle Morse, Chairman, KSMA Diabetic Committee, action was taken to elect a local Diabetic Committee of which Dr. L. R. Wilson was selected as chairman and Dr. John S. Bralliar to serve with him.

Roy Orsburn, M.D., Secretary.

WARREN-EDMONSON

The Warren-Edmonson County Medical Society held its regular meeting on the 8th of September 1953 with William R. McCormack, M.D., presiding.

The program of Telephone Seminars for the coming year 1954 was approved subject to later information as to the type of program, and whether it could be presented other than the business-meeting night. Specific recommendation was made that the program be put on tape for use by the County Society at its own approved time.

It was voted to request the Kentucky State Medical Association to sponsor a program of instructions for physicians' secretaries.

Endorsement of the County Medical Society was given to the effort sponsored by the Mental Hygiene Clinic organizing the parents into a cooperative group.

The program for the evening was a paper on the pathological classification of ovarian tumors, presented by John B. Thomison, M.D., of Nashville. This paper was discussed by Drs. Travis B. Pugh, Martin Wilson, and Richard F. Grise.

Charles M. Francis, M.D., Secretary

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

NOVEMBER, 1953

NO. 11

Some Aspects of Heart Disease From the Viewpoint of the Patient

PAUL SIMPSON, M.D.

Covington

I deeply appreciate the honor of being chosen to deliver the Oration in Medicine for the 1953 Annual Meeting of the Kentucky State Medical Association. That term "Oration" had me somewhat concerned for a time, as I kept wondering just what I might likely have to say that could in any way whatsoever be correctly construed as an "Oration."

In choosing a subject I decided to present a few ideas I have had in mind for sometime—ideas which I am sure we all must have had at one time or another. Usually, however, when one writes a paper, he generally writes it on such things as the results of a clinical investigation, methods or techniques of diagnosis or treatment, the clinical management of some disease or, an evaluation of the results obtained with some new form of therapy for a particular illness or clinical problem. Somehow, there was something that told me that the Oration in Medicine for the 1953 Meeting might well be dull enough so the subject might best be somewhat unusual if it were to turn out to be at all worthwhile. Therefore, I decided to discuss some aspects of heart disease, particularly some of the attitudes we as physicians sometimes have toward the cardiac patient, and to consider these from the viewpoint of the patient rather than from that of the physician.

The Increasing Concern

I am sure all of us have become aware that our patients as a whole are, these

days, far more concerned about their hearts than was the case even a relatively few years ago. Not too long ago, at the death of some individual of sufficient prominence to rate a front page press notice, pneumonia was frequently listed as the cause of death. He might have been comparatively young too. Nowadays, with the stampeding progress being made in the field of new and safer chemotherapeutic agents such as the antibiotics and other "miracle drugs" it is almost rare to find pneumonia listed as the cause of death. More and more we note instead that death was due to a "heart ailment" and indeed, at times our newspapers become more specific and state that death was due to "coronary thrombosis." A man collapses on the street and our newspapers say, "Heart attack." Not only is heart disease more frequently publicized in our daily newspapers, but many of our popular magazines with the widest circulations these days frequently contain articles on heart disease written for our patients. And make no mistake, our patients read them too. The nation's *Number One Killer* is a news-making thing. The national fund raising campaigns of such organizations as The American Heart Association have quickly seized the golden opportunities offered by radio and television to spread their gospel, with the result that the public, our patients, has at the present time more things to make them aware of, and at times concerned about their hearts than ever before.

Another item that plays an important role in inducing fear and anxiety about

Oration in Medicine delivered before the Annual Meeting of the Kentucky State Medical Association, Louisville, Kentucky, September 22-24, 1953.

his heart in an individual patient is his past experience in the incidence of cardiovascular disease in his own immediate family or in his circle of close friends. These, I believe, are at least some of the reasons why Mr. John Q. Public has become what we physicians often choose to call "heart conscious."

The Physician's Attitude

Now let us consider for a moment what the physician's attitude should be toward these present day conditions which are undoubtedly the basis for this increasing anxiety of our patients and the cause for the ever increasing frequency of this question, "Doctor, how's my heart?"

I believe that we as physicians are all too frequently inclined to resent the magazine articles and other such publicity and to blame them for fanning the flames of fear in our patients. At times we are even inclined to say that it is just such exaggerated and over-dramatic publicizing of heart disease that is causing the increasing incidence of cardiac neurosis, neurocirculatory asthenia, and other such functional disorders of the cardiovascular system. We are too often inclined to be irritated by the fact that our patient persists in his complaints after we have listened carefully with our stethoscopes and have told him that his heart sounds normal.

To merely listen, interpret what we hear and find on examination then casually tell the patient that we find no evidence of heart disease is many times not enough. It does not relieve his feeling of tightness in his chest, palpitation, precordial ache, or whatever his symptoms may be. To elicit a history of real anginal pain is not too difficult, but to evaluate accurately the symptoms and complaints of the "heart conscious" patient is a time consuming and often laborious procedure. Thoroughness, however, has a very desirable effect. It instills confidence on the part of the patient and reassures him of our genuine interest in his complaints. A carefully taken history plus a thorough and unhurried physical examination, followed by an honest discussion of our findings is, perhaps, the best known treatment for the "heart conscious" patient. Unfortunately however, many times when a patient drops in for a check-up of his heart and his age, symptoms, and general status of health in no way point to real cardio-

vascular pathology we are inclined to take as little time as possible and do not wish to become involved in a lengthy discussion with a jittery, nervous, and emotionally unstable patient. But remember this, in such a situation, it is what we say and do at this time that makes the difference between successfully managing a probable early psychosomatic disorder or laying the ground-work for the creation of a confirmed and miserable cardiac neurotic.

Iatrogenic Disease

Another error we as physicians have at times been guilty of, and this was of particularly high incidence in military medicine of the recent war years, might best be described by the following situation: A husky young recruit in a basic training unit appears on "sick call" with a respiratory infection. He is seen by an eager young medical officer just out of his internship and anxious not to forget how to use his stethoscope. The officer listens to his young patient's chest with an air of clinical enthusiasm and picks up a heart murmur. It is a rather insignificant soft systolic blow heard loudest at the apex but it is the first murmur the young medical officer has heard since he left his internship. He makes some casual mention of it, in all innocence, and perhaps thinks little more about it until perhaps the very next day, when a worried, anxious looking "GI," the same husky recruit, again appears on "sick call," this time with a complaint of some pain or ache in the region of his left nipple where, in all sincerity, he believes his heart to be. His "cold" is improved but this time he is really concerned about whether or not he has heart disease. The young medical officer again listens to his patient's chest and heart. Today perhaps the murmur seems a bit louder and a bit more harsh. Now is when one of the familiar drawbacks of military medicine comes into play. The young medical officer heard a murmur which he thought was interesting but little more. But now he has a young soldier on his hands who wants to know about his heart. Like all young medical officers, he sees no reason whatsoever to assume the responsibility of reaching a decision concerning the significance of this murmur and so the "buck-passing" begins. He refers his patient to the Cardiac Clinic at the Post Hospital so a specialist may evaluate the situation. Now it is important to remember that the army cardiologist

frequently has an entirely different attitude toward his military patient than he would have toward a private patient. After all, he is in the army. He sees the young soldier, examines him, orders an electrocardiogram, perhaps fluoroscopes the patient, orders some chest X-rays and about anything else that pops in his mind. After all, it costs him nothing, nor his patient, he thinks rather superficially. After all this let us assume that a correct diagnosis of an insignificant functional murmur is made and the young soldier is told that he has nothing of significance wrong with his heart and he is returned to duty. Somehow, after all this attention has been directed to his heart, our young recruit finds it a bit difficult to swallow the fact that there is nothing wrong with it. You see, a seed is planted in good soil, it is fertilized and well attended, it grows and we have another cardiac neurotic well on the way. Not because he happened to read the latest article on the ravages of heart disease in *The Reader's Digest* but directly as the result of his experience with well meaning doctors of medicine.

Much the same situation as this happens over and over again in civilian practice as well, so I wonder sometimes, if we as physicians are not just as responsible for the increasing frequency of functional cardiovascular complaints among our patients as are the articles they read.

The Physician As Patient

With regard to this point of anxiety and fear concerning heart disease, there is one more thing that I should like to remind you of and that is that we as physicians are in no wise immune to this very prevalent condition. Take the doctor who is just at the peak of his career, in his forties, when life is said to really begin. He is awakened some hours after retiring, not by that essential annoyance, the telephone, but by a vague, oppressive sensation in the substernal region. It is not necessarily agonizing, in fact it is not severe at all. Yet it is there and unrelenting. Then the wheels go round and round and he starts some of his high-powered rationalizing. Maybe it was because he had had to hurry through the evening meal too rapidly, or perhaps it was the onion in the salad. But it is still there, no mistake in that. He takes a deep breath, sits up on the side of the bed, stretches his arms about and then it goes away. But some-

how he feels a bit insecure and he is far more concerned about this little experience than he would have been had the pain been somewhere else even though it had been twice as severe. You see, when we experience any sort of sensation, however vague, that we think could possibly have been our heart, our reaction to it is far different than to something much more severe, so far as pain is concerned, anywhere other than where we would expect heart pain to be. Such an experience makes its mark even on the impregnable constitution of the physician himself. Remember this the next time one of your patients tells you of a similar experience of his.

Organic Heart Disease

Now let us consider the patient with real organic heart disease and think for a moment what our attitude should be in this type of case. For an example, suppose we consider another male patient at the peak of his career who has always enjoyed excellent health. He has never had much occasion for close contact with our profession. Suddenly, after some years of too much work and too little play, so to speak, he is struck with a pain in the substernal region, an apprehensive fear of impending death, and develops the full blown picture of coronary thrombosis and myocardial infarction. He summons his family physician. Let us assume that there is no problem with making an accurate diagnosis and our patient, really ill for the first time in his life, is given a potent hypodermic and is whisked off to a hospital with the least possible delay. Upon his arrival there he is promptly tucked in bed, his head propped up a bit and when he finally realizes where he is he is drowsily peering out through the plastic confines of an oxygen tent with the hiss and drone of its mechanism in his ears. Not long after this a young man in white appears with a rectangular box and a lot of wires and makes an electrocardiogram. A nurse pokes him with another hypodermic, another checks his pulse and blood pressure and readjusts the walls of the tent. About this time his physician again appears on the scene. He too checks his pulse, again takes his blood pressure, carefully listens to his heart and chest, checks the gauge on the oxygen tent, and then quietly informs his patient that he has a bit of trouble with his heart

but that he thinks every thing will be all right and that he will see him again in the morning. About the time the doctor has cleared the doorway into the hospital corridor it finally begins to dawn on the patient, as he gropes through the grogginess from the hypodermics, what his physician has just told him. Suddenly he remembers Bill Jones who lived across the street. Bill's illness had come on in much the same way but Bill didn't make it. Then it happens; the wheels of reactive depression begin to roll. He wonders if his wife found someone to stay with the children and when she will get to the hospital. It finally soaks in that he has had a heart attack. Then a thousand and one things race through his groggy mind. Actually the pain may be almost gone by now. He has no real discomfort other than a peculiar damp chilliness that makes him sort of shiver all over. He can't seem to forget Bill Jones. There must be some mistake. After all, he can't afford to cash in his chips. He has too many things yet to get done. And so on and on until the effects of the last hypodermic really sweep him into enforced oblivion.

Now let us assume that our patient has the benefit of all our modern knowledge in the clinical management of myocardial infarction. He is fortunate, escapes any severe complications and his infarction heals. Clinically our patient's progress is satisfactory, but mentally and emotionally he may well take one of several different courses. Regardless of how well his organic disease responds to treatment, he is now acutely aware of the fact that he has heart disease. This fact has widely different effects on different types of individuals. Our patient may completely fold up in a reactive depression, develop an acute fear of another attack and take on an attitude of utter futility for the future. He may even become so depressed at the thought of a continued existence of helplessness because of his heart that he may well feel that it would have been better had he died like his erstwhile friend the late Bill Jones.

He may, on the other hand, develop a feeling of bitterness that such an illness should have nipped his career plans in the bud at such an inopportune time and become indifferent as to what his future holds. Another type of reaction is that of the cocky, self-sufficient individual, endowed with perhaps too much self con-

fidence for his own good, who doesn't really believe he has been seriously ill and will have none of this business of slowing down. He has no intention of following the advice of his physician in order to prevent further trouble. He is the type who refuses to believe his illness was anything from the beginning but a case of "indigestion" and all through his period of treatment he has presented quite a problem because of his stubborn refusal to accept the significance of his illness. These are but a few of the many different types of reactions we find in such patients.

Our Approach to Organic Disease

Now it is of considerable importance how we as physicians approach this patient with real organic cardiovascular disease. I believe we can say that at the present time our therapy for myocardial infarction is fairly well standardized and is certainly more effective than it was a few years ago. Of course, our success or failure depends on many things and we are all well aware that some of our patients still die in spite of all our modern methods of handling the disease itself. But among those who survive the initial attack our ultimate success or failure depends largely on how well equipped we are to enable our patient to make a satisfactory adjustment to his heart disease. In other words, to keep him alive until his area of infarction has healed is only part of our job. To enable him to adjust comfortably to it and learn how to live with it completes the picture of real successful management.

Let us consider for a moment some of the reasons why we fail to accomplish completion of this entire picture. Our attitudes toward, and our advice given to patients with myocardial infarction vary as widely as we might expect. Some of us are, for one reason or another, inclined to be somewhat over-cautious and are consistently prone to advise our patients to retire—quit—give up their life's work—if they are to continue to remain well. I believe that for certain types of patients such a sentence to a full time career of thumb-twiddling in his rocking chair is the surest way I know of provoking another, perhaps fatal attack. It is true, we as physicians recognize the significance of this disease process and that it is not to be considered lightly. We know it is

a killer and that it takes its toll every day. Perhaps because of this, we are none too confident concerning our ability to achieve success in its management, and therefore, to compensate for our own insecurity, we are apt to utilize fear in our patient as an available weapon to insure cooperation on his part in following our advice. This, I believe, is wrong. The average patient who has weathered the storm of myocardial infarction has fear enough and our goal should be to help him conquer it and to use good common sense and constant reassurance in making this goal possible. It is true that readjustments in his way of life must be made, but if we are to expect cooperation of the patient in this regard we must be sure that he is well informed and understands fully the reasons for every bit of advice we give. Some of us are inclined to expect our patients to do as we say and when they don't we at times react with a desire to abandon our responsibilities and take off on a fishing trip.

A Many-Sided Problem

If we are to achieve stability in our patients, I believe we must acquire the ability to visualize ourselves in the patient's spot and see the problem clearly from his point of view. We must be able to antici-

pate his fears and anxieties. When we order him placed in an oxygen tent we should make it a point to tell him our reasons why. When we say he will need so many weeks of bed rest and inactivity he should be told the reasons why. When we insist that he lose weight or change his habits or working conditions he is entitled to know and understand the reasons why.

We all realize that our cardiac patient is one with many questions. His task of learning to live with his heart is not an easy one. How well we are able to meet the challenge of enabling him to do this makes the difference between ultimate success or at least partial failure of our treatment.

And now in conclusion let me say that in spite of all our present day research and progress in the advancement of our knowledge of the treatment of cardiovascular disease complete success is not possible when all of our attention is directed primarily to the disease itself. Our problem is not one of merely keeping our patient alive by being able to heal his disease but should include every effort to make him live as comfortably and usefully as is possible. To do this we must not forget to consider heart disease from the viewpoint of the patient.

The Use of Tantalum Mesh in Hernia Repair

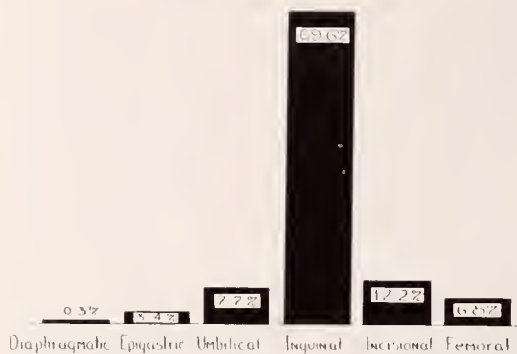
D. W. BARROW, M.D., F.A.C.S.

Lexington

In a young, thin patient, satisfactory repair of an inguinal hernia, following excision of the hernia sac and approximation of surrounding tissues, can be expected almost without exception. In other types of hernias such satisfactory results are not obtained. In a group of 550 patients with ventral hernia, including epigastric, umbilical and incisional, Shelly² found a recurrence rate of 16.8% within nine months after operation. Burdick³ reported an even less satisfactory experience, and one of us¹ found recurrence following repair of a ventral hernia to be eight times as frequent as in inguinal hernia. In older age groups with poor tissues or large defects, even inguinal hernia recur-

rence is not infrequent, being 5% over age 65¹. In the same group of patients we found that a hernia which recurred after an unsuccessful attempt at repair was apt to be difficult to cure and that second recurrences could be anticipated five times as frequently as in patients with primary repairs¹. So that in considering the hernia problem as a whole, there are a significant number of patients (15%+), (Figure 1) in whom ordinary methods are not uniformly successful, and in whom any additional measures which increase the likelihood of permanent cure are desirable^{7,10,11,12}. One such adjunct is tantalum mesh.

Tantalum is an inert metal of the platinum family which does not irritate tissue.



TOTAL 731

Figure 1

Distribution of hernia by type in 731 consecutive patients.

The mesh is pliable, easily handled, becomes completely enmeshed in fibrous tissue and healing can be anticipated even in the presence of sepsis. It does provoke serum accumulation, but this can be controlled by pressure dressings. The mesh can also be palpated subcutaneously in thin individuals unless it is placed beneath muscle and fascial layers, but this is not a serious drawback. In our patients, antibiotics have been used routinely with success and sepsis has not been a problem. Ambulation has not been delayed.

Many successful reports of the use of tantalum mesh have appeared^{8,9}. For example, Dunlap⁴, in 61 patients with hernias, had recurrence in two of the early ones, but there were none in the last forty. The minimum follow-up was two years. Throckmorton⁵ reported sixteen patients with the type of hernia in which former methods of repair were apt to be unsatisfactory. There was no recurrence in his group when repaired with tantalum mesh. Koontz⁶ has reported uniformly successful results in a great variety of patients. Our own experience has been similar, for in the twenty-seven patients in whom this has been used, there has been no recurrence and morbidity has not been increased except in one patient whose repair was complicated by excessive serum accumulation. (Vide Infra.)

First Case Report

McK. P., a 52-year old white male had bilateral hernias repaired in 1935. The right side "broke down" in 1935 and became the size of an orange.

In addition to the hernia, the patient complained of weakness and for the past three years had felt very tired and frequently fell asleep in the fields after an hour or two of work. He had received treatment for a low blood pressure of 80/40. He had noticed brownish spots on his body for the past three years and had lost twenty pounds in the past year.

Physical examination showed a man of large frame with but little muscle and practically no fat. The skin was bronzed and there were depigmented areas over the abdomen. Dental hygiene was very poor. The chest was clear. The heart was not enlarged. The heart sounds were "distant." There were no murmurs. The blood pressure was 100/60, and the pulse 68. There was a large defect in the fascia in the right inguinal region, with a readily reducible hernia. There was a lipoma over the left deltoid and a bony spur on the left thumb. There were large prolapsed hemorrhoids.

The urine was normal. His blood count was: R. B. C. 4,600,000; W. B. C. 6,750 with 65 polys; Hgb. 14.4 gms. Blood sodium was within normal limits. X-ray of the chest showed calcified nodules in both hilar areas. There was no evidence of active tuberculosis. Addison's disease could not be proved.

After pre-operative preparation for several days, the lipoma was excised from the shoulder and the recurrent hernia repaired. The cord structures had not been transplanted at the first operation but were at this time. The defect was closed by approximating first the transversalis fascia, second, the conjoined tendon; and, third, the aponeurosis of the external oblique to Poupart's ligament with fine cotton sutures. This repair was reinforced with tantalum mesh which was placed between the fascia and the subcutaneous tissues.

Following operation, serum collected in the incision and was aspirated several times, but despite these aspirations, the skin incision opened for a distance of two centimeters and the mesh was plainly visible beneath the incision.

At no time did the drainage become purulent or the patient have a fever. Within two weeks the incision had healed completely and the patient's general condition became much improved.

He was seen two years later and had no evidence of recurrence or symptoms from

the mesh, which was palpable beneath the the skin.

This was one of our first patients in whom tantalum mesh was used. We believe two lessons were learned. First, that it is not necessary to remove the tantalum mesh from an open incision: and second, that the deeper in the incision the tantalum is placed, the less likely is the patient to have complications or discomfort from it. (Figure II.)

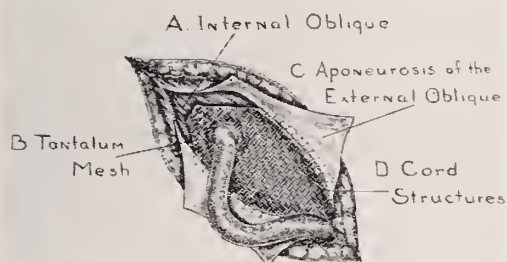


Figure II

Repair of a recurrent hernia using tantalum mesh placed beneath the aponeurosis of the external oblique.

Second Case Report

A second patient in whom tantalum mesh was used was of interest because of the nature of the defect and because the patient had great enlargement of the abdominal wall during a twin pregnancy.

C. F. W., a 25-year old white female was in an automobile accident and received multiple fractures of the ribs, left clavicle, and left humerus, a compound fracture of the skull and multiple abrasions and lacerations, one of which was an avulsion of the skin and muscles of the right lower quadrant. The peritoneum remained intact and the intestines were plainly visible beneath it. As the patient's condition was critical, only the most necessary debriding was done and the head wound closed. In the next few days the fractures were reduced and the patient recovered uneventfully. There was, however, a large hernia in the right lower quadrant.

Six months later the hernia was repaired by careful dissection of the various muscle and fascial layers. Tantalum mesh was placed beneath the aponeurosis of the external oblique and extended well beyond the defect in every direction. (Figure III). Although a pressure dressing had been applied, it was necessary to as-

pirate serum twice. There was no infection and the hernia repair was sound. Shortly after this repair, the patient became pregnant, with subsequent great stretching of the abdominal wall. There was no evidence of weakness in the repaired area during pregnancy and no recurrence of herniation following delivery. It continues to be well healed two years after it was repaired. The tantalum mesh is not palpable and does not irritate the patient.

REFERENCES

1. Barrow, David Woolfolk: Hernia. Kentucky Med. Jour., October 1948.
2. Shelley, Harold J.: Ventral Hernias. The Southern Surgeon. 9:617-656, 1940.
3. Burdick, C. G., Gillispie, D. H. M. and Higinbotham, M. L.: Ann Surg., 106:333, 1937.
4. Dunlap, George R.: The use of tantalum gauze in the repair of hernias with tissue deficiencies. New Eng. J. Med., 242:14: 543-546, 1950.
5. Throckmorton, T. D.: Tantalum Gauze in the repair of hernias complicated by tissue deficiency. Surgery, 23:1: 32-46: 48.
6. Koontz, Amos R. and Robert C. Kimberly: Tissue reactions to tantalum mesh and wire. Ann. Surg., 131:5:666-686, 1950.
7. Koontz, Amos R.: Repair of Surgical Abdominal Wall defect with tantalum mesh. J.A.M.A., 148:6: 460-461, 1952.
8. Koontz, A. R.: Tantalum mesh in Hernia Repair. Experimental and Clinical Results. Tr. S. Surg. Assn., 60:394-403, 1948.
9. Koontz, A. R.: Tantalum Mesh in repair of ventral and inguinal hernias. South Surg., 16: 1143-1148, 1950.
10. Koontz, Amos R.: Further experiences with the use of tantalum mesh in the repair of large ventral hernias. South. Med. Jour., 42: 455-459, June '49.
11. Iason, Alfred H.: Why Hernias Recur. Amer. Jour. Surg., 72:4: 550-561, '46.
12. Bussenbarger, R. A., Dumouchel, M. L. and Ivy, W. H.: Use of Tantalum mesh to repair large surgical defect in anterior abdominal wall. J.A.M.A. 142: 984-985, 1951.
13. Jefferson, Nelson C. and U. G. Dailey: Incisional hernia repaired with Tantalum gauze. Amer. J. Surg. 75:4: 575-579, '48.
14. Flynn, W. J., Brant, A. E. and G. G. Nelson: A 4-5 year analysis of Tantalum gauze used in the repair of ventral hernia. Ann Surg., 1951-134:1027.
15. Zimmerman, Leo M.: Recent advances in surgery of Inguinal Hernia. Surg. Clin. N. America, 1952. F. 135.
16. Clear, James J.: Ten year statistical study of inguinal hernias. Arch. Surg., 1951: 62:70.
17. Borgstrom, Stig: Recurrence rates of lateral inguinal hernia in adults. Acta. Chir. Scand., 101:429: 1951.

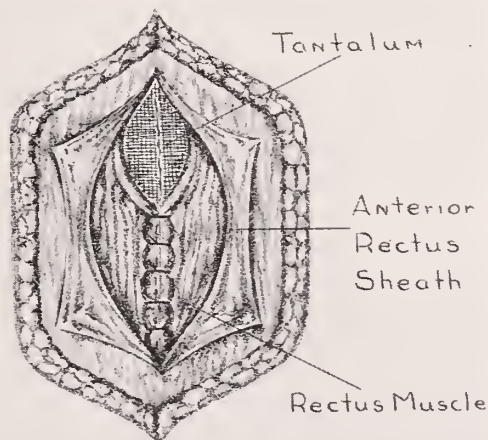


Figure III

Repair of an incisional hernia. Tantalum mesh was placed next to the peritoneum.

The Basis For Sex Education of Young Adults

HCMER B. MARTIN, M.D.

Louisville

The general practitioner, as one who is conscious of the problems of those who come to him for treatment, is ever aware of the frequency with which sex is the responsible factor. The impotent male and the frigid female come along all too often to be considered unusual. Nor may questions of sexual delinquency, perversion, neurosis, or marital unhappiness be considered rare or of little import. Any effort we may expend in order to correct or avoid these maladjustments will certainly be repaid many times by the well being of our patients.

These patients are certainly familiar to all of us but I became even more interested in this field when asked to talk with high school students on the subject of human reproduction. The intense interest of these adolescents and the fundamental questions which they asked cannot help but cause one to pause and wonder—What is sex education for? What, when, and who should be taught? Whose responsibility is it? What will be accomplished?

One soon realizes sex cannot easily be limited for it has the great influence and variability of human nature itself. Depending on one's outlook it ranges from the smutty to the sublime.

Knowledge of the subject bears no ratio to one's intellect.

It was interesting to read a newspaper story just a week ago of a convention of Baptist ministers at which the principal speaker said, "Every pastor should give a more prominent place in his program to a type of message intended to magnify the dignity of sex and the sanctity and true end of the marriage vow.

"Too many people get married with the idea that if they do not succeed they can call it quits and try again. If we do not warn them, their blood is on our hands."¹ I feel these statements are directly applicable to our own field.

Sex education is simply preparation for satisfactory family living. Since its main value and purpose is preparation for marriage, let us consider for a time the role

of marriage and the family unit to our civilization.

Ideals of Marriage²

If you should compare the United States to foreign countries you would find that we are the most married people in the world, not only at the usual time for marriage but also the widowed and divorced marry more often. Further, we marry with less ceremony and ritual than other and older nations employ to conserve the sanctity of marriage. No other people have ever educated so large a proportion of young people. Formal courses in the field of marriage and family problems are an integral part of such education. And, lastly, we are the most divorced people in the world. Current divorces approximate one-third of the marriages and this proportion would be even greater if less formal methods of separation were counted.

Today, people approaching marriage do so with one of two ideas in mind: the first of these belongs to the romantic cult. From its origin in France five centuries ago, this idea was nourished by American literature, stimulated to full growth by the movies, and emerges today as the accepted cornerstone of the marriage relationship.

As presently interpreted, this means you marry for love and that you work at it after marriage. A successful marriage is the final realization of romantic attraction and other kinds of marriages are but substitutes for the real thing. We marry for individual happiness rather than personal advantage.

Romance as the basis for marriage is a relatively new social experiment, still confined to a minority of the world's peoples. Like the romantic stories of "pulp" magazines, it will be interesting to see "how it comes out." One readily sees that when one marries only to fulfill romantic yearnings, the changes inevitable with time may require "unmarrying" when the altered needs go unsatisfied.

The second basis for marriage in the United States is individualism, a by-product of American free expression. Here, the individuals view marriage as a pool-

¹Read before a meeting of American Academy of General Practice, Jefferson County Chapter, Louisville, Kentucky, May 14, 1953.

ing of resources to effect mutual personality development. This, too, has obvious shortcomings.

Regardless of the outlook preceding marriage, the purpose of marriage is formation of the family, for the family is man's, nature's, and God's device for the perpetuation, not only of the race, but also of civilization. It is the link connecting generations. Those approaching marriage might well know that they are the custodians of the race, and that marriage is the established gateway for this function.

Those considering marriage should take into consideration that they are selecting the other parent of their children for there will be children and the parents will condition these children into the kinds of persons they will eventually be, subject to inborn limitations. This is the most important thing most of us will ever do. All our life's energies are but the small change we pay to satisfy the passing needs of our children.

Each generation is but a trustee of life, for its values and all its possessions. We never own anything, for everything that can be owned belongs to time. The real purpose of life, then, is to receive the torch from one generation, to carry it and perhaps to brighten it, but ultimately to turn it over to the next generation.

We can educate youth to appreciate that they will transmit, as parents, the culture in which they live. It is this which distinguishes man from other animals and the human family from the mating pair at pre-human levels. What the other animals learn dies with them; what we learn, we accumulate and transmit to successive generations. It is this which makes civilization possible; it is this which we have in mind when we speak of the role of the family in cultural continuity.

This then, is the theory of marriage. Let us consider now what makes the student of our educational efforts tick—the adolescent in his period of preparation for marriage.

The Adolescent³

The period of puberty is the second of three eras in the life of man when his emotions, or the intensity of his instinctual drives are at the highest. The first period is at the age of four or five when, as a child, he is an "eager beaver" with an enveloping curiosity. The third period is

during the involutional era, at which time the emotions arise again to a peak of intensity before they begin the decline of aging years.

Three particular factors, characterizing the period of puberty, make it a very difficult era for the male. The first is the intensity of the instinctual drive. The second is the relative weakness of the ego, or personality, whose function it is to keep these drives within socially acceptable bounds. It is the job of the period of adolescence to form the ego. The third factor is the relatively inadequate emotional outlet for the lad, especially for sexual expression, for which there is no allowance in our culture. Time and marriage will mollify these powerful factors but during puberty there is no easy road.

The sudden outbursts of the instincts, often taking their expression in the form of aggression, express the need of the child to be free of old restraints he knew and accepted naturally before. The intensity of aggression at this time is so great that not all boys are able to hold it within socially accepted channels, and when it does break out it creates the situation of delinquency. During this period, as when he was a small child, his object of sexual interest is essentially within the family sphere. This is often followed by an intense rejection and turning away from sexuality and during this stage a phase of sublimated homosexuality emerges in which the sexual need is expressed by a close tie with the gang.

Following this the boy begins to extend his interest to the opposite sex. Alternating with a passing element of asceticism, of great idealistic hoping and striving and a rejection and sweeping denial of sexuality, are bouts of intensive, compulsive-like masturbation. This is another manifestation of the tremendous inner instinctive turmoil and the inadequacy of the ego in its immature development to handle those powerful drives.

The girl, on the other hand, has a much easier time during puberty since she has only a gradually accumulating curiosity rather than the intense instinctive drives. Her ego structure is not threatened so often by the ceaseless turmoil which disturbs the male. Neither sex is aware of what is going on in the other. Parents, with more concern for their children than understanding, warn their boys to keep it clean and their girls to keep it at any cost

until they're married. It is not easy to cast off these warnings when one becomes wed and accept a new set of rules following the brief ceremony.

When Sex Education?

Since we know the material we would like to get across and the students we will deal with, let's now look at the situation as it stands realistically. I submit these statistics for your consideration.

Holman and Schaffner took sex histories on 4,600 unmarried draftees between the ages of 21 and 25 and found that 21% of the men had had sexual intercourse by the age of 15 (tenth grade level), 50% by 17, 75% by 19, and 92% by the age of 21. More than half had relations with "nice" girls, that is, of a society they would marry into.

From these figures it is apparent that 2/3 of the boys had their sex experience before graduation from high school.

Dr. Terman of Stanford concludes from his studies that 66% of our brides are non-virgins. Kinsey would raise this to 75% but 1/2 of these had sexual intercourse only with their future husband.

According to the U. S. Children's Bureau, 50% of illegitimate births in the United States are to girls 15 to 19 years of age. Needless to say, if sex education is to precede the first experience, it must be given before the fifteenth year.

Dr. Fleege queried 2,000 Catholic boys and found 3/4 had never received instructions from their parents. "Other children" is always the commonest source. The parents were interviewed and said they didn't know how to start and were embarrassed to use the coarse words (the only ones they knew) in discussing sex with their children. Formal sex courses are unique in that they were organized on request of students who wanted their fears and misconceptions corrected.

Terman studied 700 husbands and wives and correlated happiness with adequate sex information, gained at an early age from their parents rather than ideas given them from playmates. There is no choice about giving or not giving sex education; it is only a question of choosing between sources.

Questions of Adolescents

I have had a chance to observe this interest and enthusiastic inquiry into sex

by young people when showing a film on human reproduction and talking to ninth grade high school students. Boys, always unwilling to admit to the explosive forces within them, asked superficial questions about heredity and omitted any personal questions. The girls, on the other hand, asked fundamental questions which give us some insight into the present status of their knowledge.

Here are only a few of the questions these ninth graders asked me.

Why do males have wet dreams?

How long does a male have to be near a female before the sperm appears in the woman?

When do boys and girls intercourse?

When you have your first intercourse, how much does the female bleed?

Can a woman keep from becoming pregnant?

Who brings up the question of having a baby, the husband or the wife?

If an abortion is performed, can it hurt the woman afterwards? Can she have any more children?

Do you have to be menstruating when intercourse occurs?

Is there pain at the first time of intercourse?

What do you think of intercourse before marriage if they're sure they will marry?

Explain why some boys and girls have to get married?

About how old is a girl and boy when they are physically mature and how old should they be to get married?

How does the sperm of the male get to the female—explain.

Can you feel the sperm going into the woman?

Where does the baby come out when it is born?

What is a queer?

What are honeymoons for?

Do you have intercourse while on a honeymoon, if you do, who brings up the subject?

Answering these questions point blank required a careful choice of words to give an answer without explaining beyond their comprehension. A colleague of mine happened to see the questions and said, "You didn't answer all of them did you? Why, they're indecent." I think the

frankness of the questions show only a child's curiosity. They must be answered naturally and with equal frankness and certainly are not indecent.

What Should Be Taught?

The facts of sex differences and reproduction are important but not enough. The adolescent must have a knowledge of the responsibilities of intersex activities and of the emotions involved in the opposite sex from such activity. He must be taught to build a healthy, happy sex life in relation to the future life and a happy marriage, not just a premarital indulgence for pleasure or to prove he is a man.

Adolescents know about sex differences and childbirth but have inadequate information about dating, petting, masturbation, continence, the relative importance of sex in marriage, and the normal and spiritual aspects of sex relations.⁶

Parents should be taught that to build an effective and continuing association in the child's mind of sexual behavior with love and the best of family living means that the child must live in an atmosphere of love, have full satisfactions at each stage of growth, and receive positive recognition consistently for approved behavior patterns but receive consistent and considerate firmness for unacceptable actions. This emphasis on positive satisfac-

tions will supply the primary motivation for the child's own self discipline.

Premarital couples should have a comprehensive understanding of the prolonged efforts required for happy relationships. The doctor can see from experience with older patients just where the greatest dangers lie. Lust is not constructive in any way. It should be understood that our approach to love, like our approach to politics, reveals the kind of person we are.

And all our patients with these problems need interest and kindly advice which means minutes to us but years free from mental trauma to the patient.

Summary

The role of sex education in marriage and family relationships and basis of sex education is presented. Necessity of such training and material involved is set forth.

REFERENCES

1. Associated Press dispatch. The Louisville Times, May 5, 1953.
2. James H. S. Bossard, "What Are We Educating For in Marriage?" *Journal of Social Hygiene*, 35: 242-248, June, 1950.
3. John M. Murry, M.D., "Problems of Adolescence," a paper delivered at the Training Seminar for Psychiatrists and the General Medical Profession, Detroit, Michigan, April 30, 1950.
4. Edward T. Wiles, M.D., "The Pediatricist's Role in Sex Education," *Archives Pediatrics*, 67:19-28, January, 1950.
5. Luther E. Woodard, "Sexual Behavior: Viewpoint of the Mental Hygienist," *Journal of Social Hygiene*, 36:140.

PR Profits

LEO E. BROWN

Chicago

I greatly appreciate the privilege of being here today for your annual meeting, and I am grateful for the opportunity of addressing you this morning. It is indeed encouraging to me that you have seen fit to incorporate a discussion of public relations into your fine scientific program, because, naturally, we feel that good public relations is extremely important at this time if the profession is to continue making progress in the field of medical science.

And, in discussing the public relations of the medical profession, I can't over-emphasize the importance of PR to all physicians. The relationship of just one doctor with his patients and the public in general does affect the public relations of

the rest of the profession. We are working for the same goal, and we should take time out now and then to discuss the fundamental PR techniques and practices that result in successful medical public relations.

The difficulties experienced by Hippocrates, Galen, Semmelweis, Pasteur, and Koch in selling medical science to the public make our PR problems today somewhat insignificant. Down through the centuries, physicians have sought to practice public relations. Consider the PR techniques a doctor used in collecting his fees a century ago: he entered the home of his patient with his high top hat and his gold-headed cane; before entering the sickroom, he left his hat on the stand in the front hallway, and he ex-

Read before the Annual Meeting of the Kentucky State Medical Association, September 22-24, 1953, Louisville.

pected his fee to be in it when he was ready to leave. Of course, medical practice has changed since then and changed for the better. Today, we recognize the need and importance of better relationships between a family physician and his patients.

Although the public relations of the American Medical Association began when the organization was founded 106 years ago, it was not until 1945, when socialism began to cast its shadow over medicine, that the profession began to give serious thought to the need for action in the public relations field. It was not until 1949, when the juggernaut of socialized medicine was rolling with the political might of a national administration behind it, that the profession realized something really should be done. It was in 1949 that the National Education Campaign was developed with one specific objective—to educate the American people regarding the dangers of compulsory health insurance.

Since that time the emphasis of our public relations program has become increasingly positive in nature. We have tried to find the answer to this question: why were people willing to support a government plan to provide medical care? We have tried to analyze what made people feel the government could do a better job in delivering medical care than private medicine is doing.

We have made an effort to devise a program to correct some of the shortcomings that exist in medicine in order to obtain the confidence of the American people.

The public relations of an individual or an organization is influenced by everything we do and everything we say. Medicine's public relations will improve only in direct proportion to the improvement in the public relations of the individual physician. Respective medical organizations will share in this profit. In other words, our association must understand the public and the public must understand our association.

Public relations, I would say, is based upon effective service plus an interpretation of the services that we have to offer. We must admit the fact that we have public relations whether or not we want it. Here's the important question: do we have good public relations or bad public relations? A public relations program does not become necessary simply because we

are doing things wrong, but many times because the things we are doing right are either unknown or misinterpreted.

Public relations has become widely accepted throughout the medical profession in the last eight years. Here is a good example: In 1945, there were some forty paid executives in medicine. Today, there are more than 140 executive secretaries and public relations personnel assisting the medical profession in the promotion of its public relations program. As a matter of fact, forty-four of our states now have executive secretaries and public relations personnel. Their budgets range anywhere from a few thousand dollars to some eighty thousand dollars.

In your own state of Kentucky, you have formulated a program of improving the public relations of physicians, and I trust that under the able direction of Joe Sanford and your state society and county medical societies you will see the need to support all the activities of your state society and county societies. I would particularly appeal for aid to their public relations programs.

You know, good public relations is something like making love—you have to be willing to participate in it if you expect to get much satisfaction out of it. It is not a disguise for our shortcomings—it is not a propaganda campaign that is going to cover up things that are wrong—and it is not just newspaper publicity. In my opinion, good medical public relations is prompt, courteous, efficient service made available twenty-four hours a day and 365 days a year.

Yes, it is a big order, but the general public has come to expect much of the medical profession. I would say that the medical public relations throughout America is made up primarily of the public relations of each and every individual physician. If you do things wrong that affect relations with you and your patients, the effects will show in bad PR for the entire medical profession.

It is vitally important that each individual member of the medical profession practice sound public relations every day he practices medicine, both at work and at play. Because you are physicians, you are looked upon as leaders in your community. By and large, I think you are greatly respected. Consequently everything you do and say will affect your public relations.

I would say that one of medicine's greatest weaknesses at the present time is within the profession itself. We have a golden opportunity to do many of the things that were left undone when it became necessary for us to fight for the freedom of medicine. Even though the old Wagner-Murray-Dingle bill, the Flanders-Ives bill, and a number of other socialistic pieces of legislation have been thrown into the congressional hopper, medicine is no longer under the ax of compulsory health insurance. Socialized medicine is no longer a major threat.

Medicine is as democratic insofar as its organization is concerned as the United States itself. The Association elects its president in much the same way our country does the president. (As a matter of fact, if memory serves me right, six of the Association's presidents have been Kentuckians.) And just as citizen interest and participation in affairs of government tend to strengthen and improve the structure of government, so it is also true that physician participation in medical affairs is reflected in sounder medical public relations. I strongly recommend that you give all the support you can to your local county and state societies. Take an active part in their activities. I am confident the greater your interest in these activities, the more equitably you will be represented in the policy-making bodies of organized medicine. And this is necessary if we are to have a truly representative organization.

It seems to me, too, that what we need in medicine today is more faith in our leaders and in those with whom we work. We need less professional jealousy and above all, we need more interest in the public and less in ourselves. We need to unite to do some of the constructive things that have been left undone.

When we were under attack, we joined together in a united front to combat a particular issue. Now, when we have an opportunity to make really huge strides toward improving the practice of medicine we squabble among ourselves.

We are never going to be able to develop a sound public relations program for medicine unless we can present a united front before the general public. That does not mean we cannot have honest differences of opinion. Our organization, like America, is founded upon the premise that honest conviction should be voiced in every area.

One of the major PR problems facing medicine today appears to be the complaints about the cost of medical care. People resent paying their medical bills. Why? Because they must pay for something they neither wanted nor asked for in the first place, and for which they have very little to show after payment. A natural resentment is built up within the individual.

I recall that not too long ago I bought a new television set. It cost me \$500, and I agreed to pay \$100 down and \$60 a month for a certain period of time. I did not resent making my monthly payments because I was getting continual enjoyment out of the set. But it is altogether different with medical costs, and I think we should keep this in mind when the public criticizes medical care costs. Unfortunately, the individual physician is unjustly blamed for the total cost of medical care, which as you know, involves cost of hospitalization and drugs.

Recently, we wrote a letter to John Knight, Editor of the Chicago Daily News, in reference to an editorial in which he complained that the cost of medical care was much too high. We attempted to point out to him that while medical costs had increased 60%, the cost of living had increased 90%. However, it is significant to note that between 1950 and 1953 the cost of medical care has increased 17% as compared to a rise of 18% in the cost of all goods and services. Thus in the past three years, medical costs have kept pace with the cost of all goods and services.

Criticisms of the cost of medical care are due primarily to the reluctance of the physician to explain the costs of his services to the people. We would like to encourage all physicians to discuss frankly with their patients their fees and services, because we have learned that the majority of complaints which come to our mediation committees today revolve around fee misunderstandings. Therefore, it is our responsibility to explain the cost of medical care to each of our patients and to provide patients with an itemized account of the services rendered.

I would like to tell you of an incident that happened in Texas. A physician was called at 2:00 a.m. to treat an emergency case. Though the woman was not his patient, he got up out of bed and treated her immediately. The next day was Labor Day, but nevertheless, the physician came down to his office at 9 o'clock and gave

the woman a number of tests, some of which were indicated and several which she requested. She was then hospitalized for three days. The total charge was \$90. Upon receipt of the bill, her husband was very angry about the cost and proceeded to give the physician a tongue-lashing about the high cost of medical care. It was then that the physician said, "I'm sorry that we did not have an opportunity to discuss my fees because you brought your wife in as an emergency case. I felt you wanted me to give her the same type of treatment that I would have given my own wife under the same circumstances, but inasmuch as you are dissatisfied, there will be no charge whatsoever for professional services. I am going to ask, however, that you do pay the cost of the hospitalization and of the various tests."

The man said he was not asking for charity and wrote a check for the entire amount. The following day, the physician wrote him a nice letter, returning the check and explaining that because of the man's dissatisfaction, he was not going to accept payment. The man then wrote a check for the cost of the hospital care and tests. Since that time, he has brought more patients to that particular physician than he could possibly care for, because he realized that the doctor was treating him fairly.

A frank discussion of fees and services between the physician and patient will eliminate a great many of the misunderstandings that have developed insofar as our public relations program is concerned.

Not too long ago, a woman came into my office complaining about the cost of an operation which had been performed in Palm Beach. The surgeon had charged her \$300 for the operation, which she willingly paid because she was well satisfied with his services. She also paid the anesthetist \$50 without complaint because she realized his services had provided her with a greater amount of protection. What she did object to was the assistant surgeon's bill, which at no time had been explained to her. She had not known there would be such an expenditure and had never even seen the assistant surgeon. Her objection went back to a local mediation committee, which ironed out the misunderstanding. Because of the surgeon's failure to make an explanation, the assistant surgeon's bill was cancelled. In this case, the patient did not refuse to pay,

but was dissatisfied simply because an explanation was omitted and a misunderstanding developed.

Another major cause of dissatisfaction with the medical profession has been the occasional inability to secure a physician in an emergency. For this reason, we have tried to establish emergency call services throughout the country. In this area we also have an educational responsibility to encourage all individuals coming into our communities to select a personal physician before one is needed. It is quite fair for an individual to inquire whether or not a physician makes night calls. If the physician says he is a specialist and does not make night calls, then it is the right of the individual to select another physician who will provide this service.

It is also our responsibility to provide patients with the opportunity of presenting their dissatisfactions to a review board of the county medical society. The physician should be willing to discuss with him the availability and operation of mediation committees. The doctor also should let the patient know that physicians are more interested in providing satisfactory services than the amount of money obtained for services rendered.

I want to read to you an excerpt from a letter which I received after I had answered a critical letter: "Columbia University. Dear Mr. Brown: You were good enough to write me on October 21 regarding the excellent work you are doing. I had a personal experience that may interest you. A specialist did some work for my wife at her surgeon's request. I never saw the specialist, but thought his bill was high and wrote asking to discuss it with him. He was out of town and never got in touch with me. I wrote again, getting the enclosed answer. To the best of my recollection my request was a reasonable one and I had no desire to start any trouble. I still feel that his fee was extremely high. Other people just do not have doctors' incomes, at least not I." The doctor's reply was as follows: "Dear Mr. Harris: It is hard for me to understand what you are talking about with regards to the charge made for your wife. It was a request to do a certain procedure on her and I sent what is considered a nominal fee for this procedure. Obviously, your letter is an attempt on your part to escape paying medical expenses. I would suggest that in the future you arrange to

have your wife treated as a ward patient as you do not care to incur the expense of private treatment."

The recipient penned this on the back of the doctor's letter: "I'm an economics professor at Columbia University and am currently writing a text on economics. I want to call attention in my book to the AMA's program of discussion of fees. I shall not yield to the animal instinct in me to use this example as to how aspirations can be defeated."

This is a perfect example, in my opinion, of poor public relations.

Another individual wrote to Dr. Lull, saying: "I'm writing to you as I feel you should be best qualified to answer questions. What has become of the doctor of yesterday, who took the oath and lived up to it, dedicated himself to the saving of life rather than the almighty dollar, went on sick call anytime of the day or night instead of at his convenience, tended the sick first and asked for his fee later and concentrated on the advancement of medicine instead of his bank account or social standing?"

I am sorry that such attitudes exist among the general public. There must be some basis for such accusations. If they have developed through misunderstanding, then it is our responsibility to invite a thorough discussion of services rendered.

According to the Seventh Annual Medical Economics Survey, physicians in this country donated \$410,000,000 worth of direct charity service last year. That is 12% of the total physician income during 1952. In addition, in direct contributions of money, MDs gave \$90,000,000, and uncollected bills amounted to \$450,000,000. The amount of free services, cash donations and uncollected bills total \$950,000,000. But just as our billions in European aid have failed to win the friendship of our European neighbors, this tremendous amount of free service has not won the increased friendship of the public. It is the spirit in which such service is given that really counts. We must make every effort to bring to the attention of the people the free services which the medical profession is rendering each year and our philosophy of giving.

Another major criticism voiced against the medical profession is the apparent refusal of medicine to discipline its own members. You and I know that the num-

ber of thoughtless and unethical acts in medicine can be attributed to a very limited number of physicians. Yet, those acts condemn the entire profession.

Because some of our county medical societies have been reluctant to discipline their members, we leave ourselves open to continued public criticism generated by the acts of a few. We are in hopes that county societies will conscientiously remove from their membership rolls all who are found guilty of constant violations of the code of medical ethics. Our county medical societies should be fearless in taking this action. Otherwise, the great majority of ethical physicians will be burdened with criticisms caused by a few unethical men. We will never be able to make much progress with our public relations program unless we become fearless enough to take these actions into account and do something about them.

There are a lot of doctors who say, "Oh, what difference does it make whether or not I have good public relations? I'm getting along all right. My regular patients come to me." These men fail to consider the patients who fail to return because they were dissatisfied with the physician's services.

We have prepared recently a manual on the physician's public relations entitled "Rx Public Relations." In order to get ideas for this manual, we thought it was advisable to go back to the profession. We wrote to some twenty-five individuals throughout the country to get their suggestions. One physician in Arkansas wrote in turn to twenty-five other doctors within the State to get their opinions as to just how a publication of this nature should be made up and what subject matter it should contain.

I'm sure you all took advantage of the little booklet we prepared on "Winning Ways With Patients," in which we tried to point out the various public relations techniques that should be explored and followed by your office secretary. The physician's PR manual will be quite similar.

I want to go over just briefly one of the letters regarding the physician's PR manual. One physician offered these suggestions: "That we should keep in our minds our office management dealing with the physical aspects of a clean cheerful office, professional conduct, the handling of emergency night calls, the ar-

rangement of substitute coverage, recognizing our own limitations, not selling ourselves short but always giving the best treatment possible; that our personal conduct in and outside the office has a relation to our public relations program; that we should do business within the town that we are receiving our income from; that we should pay our own bills promptly as we expect our patients to pay; that we should use special privileges only when they are warranted within the particular town; that we should keep informed on the scientific aspects of medicine, prepayment plans and organized medicine's policies; and that above all, we should be team players. Play on the team."

The suggestions he made for improving the public relations of the individual doctor included a good office assistant, carefully evaluating his patients and being decent and human to his fellowmen at all times. This physician says, "Sick people are emotionally upset. Families of patients are unreasonable, as you know only too well. Skill is no substitute for kindness. Treat people, not diseases." These were some of the suggestions given us by a practicing physician for improving medicine's public relations. All are incorporated in our PR manual, which many of you should have received by now.

There is one other point I want to bring out and that is the fact that only half our team is playing. The men who regularly attend county and state medical society meetings are cognizant of our PR needs. But what about the hundreds within organized medicine who fail to realize the importance of such gatherings? The forty to sixty per cent who fail to attend county society meetings within the course of the year have little knowledge of the society's policies or activities. Often, these are the men most critical of policies adopted, even though they failed to avail themselves of their opportunity to take part in formation of such policy. So I say that

one of medicine's weaknesses is the fact that only about half our team is playing.

I am not going to discuss any of the activities of the American Medical Association insofar as its public relations program is concerned. I hope that if you have any questions about our program, you will feel free to discuss them with me.

In closing, I want to say that it is our opinion we must do more than practice good medicine and good sound public relations—or even clean our own house for that matter. If we are going to maintain our free enterprise system in America, we are going to have to be willing to speak out in its behalf. You and I all know that the fight for people's minds is not over. Now is the time for medicine to help sell America back to Americans and encourage people to take an active interest in civic affairs. The medical profession should lead the way in this particular endeavor.

I want to leave with you one little verse, entitled "My Creed," which I believe exemplifies the philosophy of medicine throughout the country:

"I do not choose to be a common man,
It is my right to be uncommon, if I can.
I seek opportunity, not security,
I do not wish to be a kept citizen,
Humbled and dulled by having the state
look after me,
I want to take the calculated risks,
To dream, to build, to fail and to succeed.
I refuse to barter incentive for a dole,
I prefer the challenges of life to the guaranteed existence,
The thrill of fulfillment to the stale calm
of Utopia,
I will not trade my freedom for beneficence,
Nor my dignity for a handout.
It is my heritage to think and act for myself,
To enjoy the benefits of my creation
And to face the world boldly and say,
This I have done.
All this is what it means to me to be an
American."

Doctor, when you read the advertising pages of the Journal, remember that all ads are carefully screened—the items, services, and messages presented are committee accepted. The advertisers like our journal and have selected it for use in their promotional program. Your response to the advertising encourages

their continued use of our publication, since they are seeking your patronage. In turn, the advertisers' support helps us to produce a journal for you which maintains the highest standards. When you send inquiries, let them know that you read their advertisement in the Journal of the Kentucky Medical Association.

Recent Concepts of Prophylaxis in Anterior Poliomyelitis

J. EDMUND BICKEL, M.D.

Owensboro

The past few years have been tragic ones for those concerned with the problems of poliomyelitis, but at the same time, they have been years of hope. On one hand the largest outbreak of this disease in the United States occurred in 1952 when over 56,000 cases were reported, bringing the total for the past three years to well over 100,000 cases. This gradual increase during the past few years, according to virologists, is a natural one and not just due to better diagnosis. On the other hand, significant advances in research have been made in the past three years resulting in the first scientific demonstration of what may prove to be a temporary preventive for poliomyelitis.

Immunology

Before discussing the prophylaxis of polio, there are several facts concerning the immunology of the polio viruses that must be considered. Antigenic studies have resulted in the identification of at least three broad types of virus, Brunhilde, Lansing and Leon¹, or Types I, II, and III, respectively. These three viruses produce identical clinical symptoms but at the same time infection by one will not produce antibodies effective against either of the other two. Therefore it is possible to become infected by all three types and in fact, most persons by the age of 20 appear to be immune to all three types. Only 50 examples of second attacks had been reported up to the end of 1951,^{2,3} so fortunately, most infections with the polio viruses are so mild that they go undetected. It is evident however that any effective preventive must be capable of acting against all three virus types and not merely against one or two.

Passive Immunity

Through research just before and during the early part of World War II, gamma globulin, a protein fraction of the blood which contains antibodies against infection, was found to prevent or modify such virus diseases as measles and infectious hepatitis. Later gamma globulin was found to contain neutralizing antibodies

against all three immunologic types of poliomyelitis virus⁴. After gamma globulin was found to protect Rhesus monkeys against oral challenges of all 3 types of virus,^{5,6} it was ready for clinical trial. In three areas where polio was prevalent, a total of about 55,000 children between the ages of 1 and 11 were subjects. They were divided into two equal groups, one group receiving gamma globulin, the other a preparation similar in appearance but containing only harmless gelatin. The dosage of gamma globulin for the trial was calculated at 0.14 c.c. per pound of body weight. The effectiveness of gamma globulin was then determined by comparing the number of paralytic cases occurring in the two equally divided groups.

Hammon and his co-workers^{7,8} reported encouraging results from this work after a follow-up study of thirteen weeks. Thirty-one children in the gamma globulin group came down with paralytic polio, while 73 in the control, or unprotected, group contracted the disease. During the second week after injection, a decided difference developed between the number of cases in the two groups, the gamma globulin-injected group showing decreased incidence of poliomyelitis. This protection continued to some extent through the fifth week. Also, the severity and extent of paralysis appeared to be favorably modified in the gamma globulin group.

Although gamma globulin may offer protection against poliomyelitis, the results in 104 cases cannot be considered a satisfactory evaluation of such protection. Since the manifestations of infectious diseases and especially polio are so variable, a study of this kind should include probably five times as many cases before any sweeping conclusions can be made. Since this initial study, gamma globulin has been given extensively to household contacts of polio patients. Mass inoculations with gamma globulin have also been carried out in many epidemic areas throughout the country. As yet there have been no reports on its wide-spread use the past summer. However, because of the rather short incubation period of polio and the difficulty encountered in making a definite diagnosis early, it is felt

Read before the Annual Meeting of the Kentucky State Medical Association, Louisville, Kentucky, September 22-24.

that gamma globulin is probably of more value in preventing poliomyelitis when it is given by mass inoculation in epidemic areas.

Siegel and Greenberg⁹ recently reported on a study of the epidemiology of multiple household infections occurring in New York City from 1949 to 1952 with particular reference to the applicability of passive immunization as a community measure. The time interval between the onset of the initial and subsequent cases in a household followed a characteristic pattern, most of the cases occurring within the first week, and about 95% within two weeks. The close grouping of household cases in the first week is a serious limitation to the usefulness of gamma globulin and makes early diagnosis and administration of gamma globulin imperative.

Active Immunity

Since the solution to polio prophylaxis is not gamma globulin which confers only temporary passive immunity at best, a tremendous amount of research is being carried out to develop a vaccine which will impart active immunity. Active antibody formation can be induced by two methods. One is through the use of a live virus vaccine, the virus having been modified in pathogenicity by laboratory passage. The other by the use of a killed virus vaccine in which the infectious activity of the virus has been destroyed by physical or chemical methods.

Recently a group of twenty volunteers were fed a living Lansing-like strain of polio virus. This virus continued to appear in the stool of most of these subjects, and they developed significant levels of serum antibodies without any evidence of illness.^{10,11} More recently, Salk¹² has reported the use of a killed virus vaccine on over 160 human subjects. The virus used for the vaccine was obtained from tissue culture fluid and contained all three types of poliomyelitis virus. It was treated with formaldehyde in such a way as to destroy the infectious activity of the virus without destroying completely the antigenic activity. It was

shown that the preparations used were antigenically active in human subjects, causing a rise in antibody titer for each of the three types. The vaccine which seemed more effective was the one which had been incorporated in a mineral oil emulsion.

Summary

There has been an alarming natural increase in poliomyelitis the past few years. Researchers have multiplied their efforts to find an immunizing agent, active or passive, to prevent polio. The use of gamma globulin in a recent mass inoculation study seemed to offer some protection against polio but no significant conclusions can be drawn from this small study. The serious limitations of gamma globulin for household contacts were also mentioned.

The final solution to the problem of polio prophylaxis rests in the use of a vaccine that will impart permanent active immunity. The gap between animal experimentation and human use has been bridged and it is hoped that this vaccine will soon be ready for use on a mass scale. Only after this will we know its real value in the prevention of poliomyelitis and then we can expect it to be a few years before large enough amounts of it can be produced for general use.

BIBLIOGRAPHY

1. National Foundation for Infantile Paralysis: *Am. J. Hyg.* 54: 191 (Sept.) 1951.
2. Coffee, A. T. S. and Paul, W. D.: *Neurology* 12: 461 (Nov.-Dec.) 1951.
3. Fischer, A. E. and Stillerman, M.: *J.A.M.A.* 110: 569 (Feb. 19) 1938.
4. Bodian, D.: *Proc. Soc. Exper. Biol. and Med.* 72: 259 (Oct.) 1949.
5. Bodian, D.: *Am. J. Hyg.* 54:132 (July) 1951.
6. Bodian, D.: *Am. J. Hyg.* 56:78 (July) 1952.
7. Hammon, W. McD., Coriell, L. L., and Stokes, J., Jr.: *J.A.M.A.* 150: 739 (Oct 25) 1952.
8. Hammon, W. McD., Coriell, L. L., and Stokes, J., Jr.: *J.A.M.A.* 150:750 (Oct. 25) 1952.
9. Siegel, M. and Greenberg, M.: *New Eng. J. Med.* 249: 171 (July 30) 1953.
10. Koprowski, H., Jervis, G. A., and Norton, T. W.: *Am. J. Hyg.* 55:108 (Jan.) 1952.
11. Koprowski, H., Jervis, G. A., Norton, T. W., and Nelson, D. J.: *Proc. Soc. Exper. Biol. and Med.* Vol. 82, No. 2, 277:280 (Feb.) 1953.
12. Salk, J. E.: *J.A.M.A.*, Vol. 151, No. 13, 1081:1098 (Mar. 28) 1953.

A documentary-type sound film taken at the third annual convention of the Student American Medical Association last June in Chicago has been designed to give a comprehensive picture of both the business and entertainment features of the meeting, and will be shown to

local student chapters throughout the country during the school year. In addition, county medical societies may apply for prints from the AMA's Committee on Medical Motion Pictures. More information is available on request at your KSMA Headquarters Office.

Chest Injuries

R. W. ROBERTSON, M.D.

Paducah

Simple abrasions, contusions, and lacerations of the chest, when superficial, are treated like similar injuries of other parts of the body. Occasionally a traumatic pleurisy may develop which may be dry or on X-ray some fluid may be seen. In these cases a low grade febrile reaction will be found. The small amount of fluid usually absorbs and the temperature and pain subside in one or two weeks.

Fractured Ribs

The best treatment is simply to inject the point of fracture or better still the intercostal nerve. Five c.c. of one or two per cent Novocaine is used. It is not necessary actually to hit the nerve with the needle, but just to put the Novocaine in the vicinity of the nerve. If the pain is severe it may be necessary to inject one or two ribs above and below the injured area. The technique is very simple. A small wheal is made just beneath the skin with a hypodermic needle. A twenty gauge needle, one and one-half inches long, is then inserted to contact the lower border of the rib. It is then withdrawn slightly and re-inserted about one-half centimeter beneath the rib. The plunger is withdrawn a little and if no blood is obtained the solution is injected. This procedure can be repeated in four to six hours if necessary. A single injection may last twenty-four hours and it is surprising to find that one injection often gives permanent relief. In twenty-four hours the rib ends have hematomas around them which help to prevent pain.

Taping and strapping the chest with adhesive has been the popular method of treatment for many years, and should not be discarded altogether. It was once thought ribs like other bones should be immobilized to heal properly. We now know that this is not true, as a rib is largely cancellous bone and seems to heal in whatever position its fragments approximate. In the female it is difficult to tape a chest because of the breasts. The relaxed soft tissues of some people, especially in the older age group, make it im-

possible to properly immobilize their chests with adhesive. Some skins will not tolerate its use. It may impair respiration by restricting the function of the lung beneath. Also a roentgenogram is more difficult to interpret through adhesive.

Crushed Chest

The most serious type of non-penetrating injury is the crushed chest with multiple rib fractures. If the ribs are broken in several places and especially anteriorly, the chest wall may become as a flail. In the act of inspiration the chest wall on the affected side sucks in as the normal side expands. In the act of expiration the injured side goes outward or expands as the normal side comes in. This maneuver is known as paradoxical respirations. These patients show signs of severe pain, the respiration and pulse are rapid and cyanosis or pallor is present. Cyanosis is usually a late manifestation. If this type of respiration is allowed to continue for any length of time the patient goes into shock, which may be profound.

Sternal fractures are sometimes present in this type of injury and if the displaced fragments are increasing the flaccidity of the chest it may be necessary to do an open reduction using infiltration Novocaine anesthesia and elevating the depressed fragment into place. As a first aid measure, towel clips or a uterine tenaculum may be inserted through the skin into the sternum. For constant fixation these are attached to an overhanging pulley or an orthopedic frame and four or five pounds of weight are applied as traction.

Resuscitative treatment to restore cardio-respiratory balance and relieve pain is of utmost importance. This imbalance and pain is more often the cause of shock than is hemorrhage, unless the latter is severe.

Nasal oxygen is started as soon as possible. The condition is improved by placing the patient on the affected side. Demerol is my preference for relief of pain. If morphine is used it should be used sparingly (1/8 to 1/6 of a grain) because of its respiratory depressant action. To

further relieve the paradox and pain, intercostal or paravertebral nerve blocking is done. In those cases that continue having trouble after blocking, the chest can be further supported by one encircling width of two or three inch adhesive that goes around the chest completely at the level of the costal arch. Shock is often relieved by the above resuscitative procedures. If hemorrhage is present and is thought sufficient to augment the shock the blood volume should be replaced. With the growing popularity of the plasma expanders it behooves every doctor to have this solution readily accessible. DeBaKey carefully studied twenty patients with wound shock and concluded with twenty to thirty-five per cent blood volume deficit Dextran may be adequate as a sole replacement fluid.

Wet Lung

Many of the severe cases will have considerable damage to the underlying lung by the force of the blow or rib fragments, followed by the accumulation of bronchial secretions. This condition is often called wet lung, and if left untreated may lead to atelectasis, pneumonia and death. If because of weakness and pain, the patient is unable to cough, the bronchial tree should be aspirated with a catheter. This is not a difficult procedure and the material is available in any hospital. A new sixteen or eighteen french rubber catheter is prepared by cutting off the tip or by leaving the tip on and cutting a couple of holes in the distal end. The head of the bed is raised so the patient may be in a semi-upright position. The tongue is held with a piece of gauze. The catheter is passed through the nostril into the trachea during inspiration. It may take several attempts to enter the trachea. When entered, the catheter is passed for nearly its entire length. Signs of entering the trachea are coughing which may be violent, and hoarseness, to the extent the voice is heard only in a whisper. A suction machine is connected and the catheter is moved in and out. The suction apparatus should not be left on for more than four or five seconds, as the patient becomes cyanotic. The patient is allowed to rest and the procedure repeated until the right bronchus seems dry. To enter the left bronchus the head is turned to the right, and the catheter is partially withdrawn and reinserted; when this is

done the catheter usually enters the left bronchus and is aspirated in the same manner as the right. Catheter aspiration is a successful method in most cases and often results in very dramatic improvement of the patient's condition. If an obstructive type of atelectasis has developed bronchoscopic aspiration may have to be resorted to.

Penetrating Wounds

These wounds must be considered in two parts. First the damage to the chest wall and second that of the lung. These injuries are created by thin sharp instruments, high velocity bullets, or by blunt objects with enough force to penetrate the chest wall. In all simple gun shot or stab wounds where there is no sign of damage to the mediastinal structures or diaphragm, and without excessive bleeding, all that is necessary is a light debridement. These wounds can often be closed primarily. A small wound of the chest wall may look insignificant, but you may then find the patient in severe shock due to the escape of a large amount of blood into the pleural space as a result of a lacerated lung. X-rays are very important in determining the course of a bullet, to see if a lung is collapsed and to determine whether a hemothorax or pneumothorax is present. Flat plates of the abdomen are essential because of the frequency of thoraco-abdominal injuries. Retained foreign bodies are not indications for immediate surgery and can be dealt with at a later date; however, if the patient is in good condition and the situation ideal for surgery, one can go ahead and remove large foreign bodies at once. Often the damage to the underlying lung is from indriven fragments of the ribs. These also need not be removed at once, and may never cause any trouble. Sucking wounds whether small or large require prompt closure. Temporary closure may be accomplished with an occlusive dressing until a definite procedure may be done. If there has been a large wound so that a thoracotomy is achieved simply by debridement then any intrapleural procedure that is indicated should be carried out at that time. In all instances, whether with or without thoracotomy, all blood and air should be removed and an air tight layer closure done. The chest should be drained or repeated aspirations done to keep the pleura dry as possible.

Hemothorax

Hemothorax is a frequent complication of chest injuries. It was learned by World War II experiences that a formal thoracotomy was not necessary for a blood filled pleural space unless there was evidence of a direct hit to a major vessel with a recurrence of the bleeding. Lacerated lungs were found to stop bleeding when the blood pressure dropped and the lung collapsed. When the blood volume was restored and the lung re-expanded, the resumption of bleeding was the exception rather than the rule. One thousand to fifteen hundred c.c. of blood can be aspirated at one time. Pain in the chest and coughing are signs to discontinue the aspiration. The majority of hemothoraces can be treated successfully by early and repeated aspirations. A few will need a decortication later on.

Spontaneous Pneumothorax

This is usually due to a ruptured emphysematous bleb. It comes on following exertion or coughing in most cases. The symptoms are pain and dyspnea. If a roentgenogram shows only a small amount of air present it can be left alone to absorb. When the lung is collapsed the treatment is repeated aspirations. If necessary, catheter drainage is used. Rarely is it necessary to do a thoracotomy to suture or plicate the area involved.

Tension Pneumothorax

This is not a common complication of chest wounds, but it does occur occasionally. To be a true tension pneumothorax the pressure must be greater than at-

mospheric in both phases of respiration. Cyanosis and dyspnea are present, the chest is hyper-resonant, and breath sounds are absent. The trachea and heart are displaced away from the affected side. Some of these cases are caused by the struggling of the patient because of pain and the tension disappears if pain is abolished. In those instances of tension pneumothorax with marked dyspnea, and often sub-cutaneous emphysema in the neck and over the chest, the condition must be controlled at once. It is usually due to either the rupture of a large bronchus or a peculiar set of circumstances that make a check-valve mechanism. It can be relieved best by insertion of a fourteen french catheter through a trocar, either high in the axilla or in the second interspace anteriorly. If this can not be done, a large bore needle will work temporarily. As soon as possible any drain used should be connected to an under water seal. Most cases will be cured by this means. If the leak persists for more than two or three days, one should open the chest and repair the damage.

After the life saving procedures in all open and severe chest injuries there are important secondary measures that should be observed. Tetanus antitoxin is given in penetrating wounds. Antibiotics are administered prophylactically, and until all signs of infection have disappeared. Daily examinations of the chest are very essential. The importance of frequent X-rays with the patient sitting or standing cannot be minimized in the post-operative care. Lastly, the necessity of coughing to keep the airway clear cannot be over emphasized.

Nearly 92 million Americans carried voluntary health insurance against hospital expenses in 1952, an increase of more than 5½ million over 1951, indicating an upward trend in increased protection against hospital, surgical and medical care, all of which reached new heights, said the AMA Council on Medical Service. Copies of a complete report on health coverage in the U. S. made in an annual survey by the Health Insurance Council will be distributed to medical schools, teaching hos-

pitals, and state and county medical societies by the AMA.

The International Academy of Proctology has established a postgraduate teaching fund to provide gift subscriptions to the American Journal of Proctology to 750 of the largest Hospital Libraries in this country and abroad. These subscriptions will provide a continuing postgraduate course for interns, residents and hospital attending staffs in all major hospitals.

Bronchial Obstruction: Its Significance in Pulmonary Disease

PAUL H. HOLINGER, M.D.

Chicago, Illinois

Obstruction of a bronchus is most classically illustrated by the aspiration of a foreign body into one of the major bronchial tubes. Such events are dramatic, although fortunately relatively rare, but they do serve to demonstrate the physiology and pathology of events that take place when the obstruction is due to other conditions. It is significant that the effect of bronchial obstruction on the lung distal to the obstruction is not as dependent upon whether the lesion is inside the bronchus or compressing it from without, as it is upon the degree to which the bronchus is obstructed. Thus, a minimal obstruction produces relatively few signs and symptoms other than a wheeze; a moderate obstruction due to a variety of lesions such as a recently aspirated peanut or an early bronchogenic carcinoma will cause an obstructive emphysema; and a complete obstruction caused by the stagnant mucus in the bronchus post-operatively will cause total atelectasis. Thus, a persistent wheeze and cough, an obstructive emphysema or an atelectasis may indicate endobronchial disease of non-specific or specific inflammatory character, or a benign or malignant bronchogenic neoplasm.

Inflammatory Obstruction

Inflamed, edematous bronchial mucosa may produce a partial bronchial obstruction with wheezing or obstructive emphysema, but localized or even diffuse mucosal swelling is more prone to cause atelectasis of a segment or a lobe through complete occlusion of the segmental or lobar bronchus. Such changes are seen not infrequently in association with acute respiratory tract infections and in acute asthmatic bronchitis. The mucosa in such cases is thickened, red and moist. The orifices of the segmental bronchi are puckered and the lumina visible beyond are narrowed or obliterated. Often thick white or yellow pus can be seen oozing through the orifice on cough or deep expiration and insertion of a small aspirator results in the release of a considerable

quantity of the same material. The atelectasis resulting from the edematous, inflammatory obstruction produces a localized pneumonitis often mistakenly designated as a virus pneumonia or unresolved pneumonia.

Development of Bronchiectasis

If the bronchial obstruction and the infectious process beyond persist, bronchial wall destruction follows with bronchiectasis as the end result. This sequence of events, often recorded following foreign body aspiration, indicates the etiologic relationship between bronchial obstruction and bronchiectasis. It indicates, too, the importance of early recognition of the nature of the process in order that proper means of shrinking the mucosa may be undertaken to permit drainage and re-aeration of the affected lung. Time is an important factor since, in addition to the virulence of the infecting organism, the degree of bronchiectasis that develops is proportional to the duration of the atelectasis. Adequate drainage can be obtained by the frequent application of bronchoscopic sponges with adrenalin or twenty per cent cocaine, and by careful insertion of flexible aspirators into the affected bronchi. This syndrome of inflammatory bronchial stenosis has been known and recently repopularized as related to the right middle lobe bronchus, giving the so-called "middle lobe syndrome." Atelectasis of this lobe is seen often because of compression of the bronchus by inflamed or calcified hilar glands, the latter associated with the presence of bronchioliths in the bronchial wall.

Specific Inflammations

The most frequent specific inflammatory processes producing endobronchial lesions are the various types of bronchial tuberculosis, simple inflammation and edema, ulceration with caseous exudate, granulomatous formations and healing stenoses. The tuberculous inflammatory process first involves the submucosa of the bronchi as an increased vascularity and swelling of the bronchial wall, resulting in diminution of the lumen. Later, the mucosal lining over the affected region of

the bronchus sloughs, leaving an ulcer with a granulating base, usually designated as an ulcerogranuloma. The granulation tissue may increase in size and eventually occlude the lumen of the bronchus. Caseation of the surface granulations will give it a white or grey appearance, either sticky or flaky, depending on the amount of moisture in that particular region. When the acute inflammatory phase diminishes, the lesion begins to fibrose. The final picture is a partial or complete stenosis depending on the proportionate size of the bronchus and the extent of the bronchial disease. From the site of origin the lesions spread along the bronchial wall toward the larger bronchi and finally involve the trachea. The stem bronchi may become completely occluded, resulting in massive atelectasis and supuration of the corresponding lung. It is interesting to note that the left main bronchus is involved in slightly more than half of the positive cases, and the right upper lobe orifice will be seen to be affected in approximately thirty per cent. Ulceration of the trachea may progress upward as far as the glottis, involving particularly the anterior wall. Fibrosis and stenosis of the bronchus will be the end result and the fate of the lung tissue distal to the lesion will depend on the patency of the bronchial lumen when all activity has subsided. When these obstructive phenomena continue to stenosis, bronchiectasis and lung abscess follow with the destruction of large areas of lung tissue. Fungus diseases such as aspergillosis, torula, actinomycosis, blastomycosis, and the inflammatory changes, tumor formations and sclerotic deformities of rhinoscleroma are other specific inflammations that develop endobronchial lesions and thus produce bronchial obstruction.

Obstructing Tumors

Benign and malignant tumors produce pulmonary findings characterized for the most part by their location, by the degree of obstruction and by their sojourn rather than by their histologic classification. Benign tumors of the bronchial wall such as polyps, lipomas, papillomas, fibromas and chondromas may give an identical clinical picture to that of a bronchogenic carcinoma. However, in many cases, if there is a minimal degree of complicating bronchopulmonary suppuration, the benign character of the lesion is apparent by the

lack of infiltration or destruction of the adjacent bronchial walls. Bronchial adenomas must be considered as special tumors, exceedingly slow growing, somewhat invasive in character. Their appearance through the bronchoscope is that of a smooth, round mass which is firm, freely bleeding and often covered with a smooth, vascular appearing membrane. Endoscopic removal is sufficient to cure the disease in approximately half of the cases. However, if there is local recurrence, if the tumor bleeds excessively on biopsy, or if there is lung destruction distal to the tumor sufficiently great to necessitate surgical intervention in itself, surgical removal of the tumor and of the area of lung it has obstructed is indicated. Closely related to the adenomas but a distinctly different clinical entity are the cylindromas of the bronchus. These are malignant and, while they, too, are slow growing, they metastasize to the regional lymph nodes and other areas of the body. Therapy here is entirely surgical, although palliative removal of obstructing tissue may be indicated if the position of the lesion indicates it to be nonresectable.

Bronchogenic Carcinoma

Bronchogenic carcinoma assumes many variable characteristics. The most common endobronchial form is the soft verrucose, bulky tumor obstructing a major bronchus or the bronchus to a lobe or a segment. It is red, friable, freely bleeding, and behind it lies atelectatic lung and bronchopulmonary suppuration in the form of bronchiectasis or lung abscess. The tumor may be covered with exudate, necrotic debris or purulent secretion which must be aspirated carefully before tissue is taken. Other tumors are polypoid in character with a mulberry-like appearance. Some carcinomas invade the bronchial walls submucosally or through the peribronchial lymphatics to produce an extreme induration of the bronchial walls far above the point of the complete bronchial obstruction, which was determined as the location of the lesion by physical and X-ray findings. Occasionally an ulcerative type of lesion is found with rounded edges and a necrotic base extending along the floor or wall of the bronchus. Such lesions are not often seen bronchoscopically because at this stage they produce relatively few symptoms which call atten-

(Continued on page 518)

SPECIAL ARTICLES

Toward Better Medical Care in Kentucky

G. Y. GRAVES, M.D.

President Kentucky State Medical Association 1952-53

Bowling Green

Everyone will agree that the maldistribution of physicians is one of the principal reasons for the lack of good medical care in certain areas of this country. Not only is this true of general practitioners, but also of specialists. If we are to improve this situation, we must study the causes and try to arrive at some answers to the problem.

There must be a reason why one part of the country will have a surplus of physicians and another cannot take care of its own needs. I think it is important to remember that "Society does not get better doctors than society itself makes provisions for."

The community without adequate medical care should study itself to find out why such a situation exists. Perhaps it really does not need a physician. Perhaps its needs are being so well taken care of by the doctors in a large neighboring town that it would not support a local physician. Perhaps it is not willing to pay a living wage to one who would settle there. Perhaps its roads are so poor, its schools so bad, and its surroundings so unpleasant that no doctor and his wife would want to live and raise their family in such an environment. Perhaps the doctor cannot find satisfactory housing for his home and office. Perhaps the community is so isolated that he would be out on his own, having no contact with any other physician. Perhaps it is not sending away enough of its young men and women to study medicine and nursing to take care of its medical needs. Sending away those who have ties to draw them home is one of the best means of ensuring an adequate supply of nurses and physicians.

Another situation tending to cause a disproportionate number of doctors to set-

tle in cities is the fact that medical education requires from ten to twelve years of a young man's life, or from three to four years of a nurse's life. Most of this period is spent in a city away from home; consequently at the end of that period the young man and woman identify themselves with the place where they receive their education rather than with their home.

Furthermore, the educational system and the residency system tend to exalt the specialist at the expense of the general practitioner. The impressionable young man is prone to get an exaggerated idea of the specialist's importance. He is not as yet capable of assessing the relative importance of the capable general practitioner and the specialist. He has not learned that if the specialist knows a great deal more about his specialty than the general practitioner, in turn, the general practitioner has a much broader base of knowledge relating to the care of the patient and his disease. Both are necessary for the practice of good medicine.

There are other personal considerations that may influence his choice. The graduate is likely to be impressed by the apparently larger financial reward of the city practitioner. He is certainly impressed by the better hospital facilities and the easier life of the city physician. He may, moreover, feel the desire to try himself in a more competitive area, and he may believe that national recognition is much easier for the city physician to attain—an idea which is true to a certain extent. If he desires to specialize, he may feel that only in the city will he find a sufficient number of patients to enable him to practice his specialty alone.

While these surmises might have been true in the past, they are not necessarily so at the present. Conditions have changed since the time when every cross-

road had its country doctor. The automobile and good roads have brought the patient relatively closer to the physician in the town twenty-five or thirty miles away than the patient would have been to the crossroads doctor only six or eight miles away over the muddy road. People are discovering, too, that better medicine can be practiced in well-equipped offices or hospitals than can be practiced at home. The trend is towards more office calls and fewer home calls. This saves the doctor's time by eliminating travel from home to home, so that not only can he care for more patients, but also have more time to examine and talk to them under optimal conditions. In addition, well-trained office assistants can make his task easier. These assistants can be trained in the small town as well as in the larger one. The office can be attractive and efficient in any community. The use of antibiotics, better diagnostic facilities, and better trained assistants enable the present-day doctor to treat many more patients than the horse-and-buggy doctor could ever hope to care for, and to give them more efficient attention.

As better roads, television and radio have brought the isolated community in contact with the rest of the world, individuals have seen how the rest of the world lives, and becoming dissatisfied with their lot, have endeavored to improve themselves and their surroundings. Look at the neat new houses, the well-kept lawns, the farmhouses with light and water; the country is rapidly catching up with the city. The country has these advantages without some of the real disadvantages of the city. There is no smog in the morning, no driving miles in heavy traffic to the office, none of the noise or confusion of the city—a person has a chance to live.

The small town has discovered the need for better hospital facilities and as the result of the Hill-Burton Act, or being driven by its own necessity, has constructed new hospitals that except in size compare very favorably with the large hospitals. The small town means to take care of its own sick, and it hopes to attract the necessary trained personnel and professional staff to do the job—and it is succeeding. One danger is that the small town will build more hospital facilities than it needs, can staff or can support. However, better facilities will attract bet-

ter physicians, trained personnel, and last but not least, more patients.

In the past, only the most primitive type of medicine has been practiced in the smaller towns and counties, only that which could be dispensed in the home with equipment that could be carried around in a bag. The most serious cases were sent to a city where there was better medical care available. Small wonder that the ambitious young M.D. had to settle in the city if he wished to accomplish much.

Now that condition no longer prevails. While Podunk may not be able to support a neurosurgeon, it can support a man who can do creditable surgery, practice good obstetrics, or administer good internal medicine. It is no longer necessary for the young man who wishes to specialize to go to the large city, for he can now find sufficient work in the small city or trading center. As a matter of fact, the area from which he draws his practice may be larger and may contain more people in proportion than the area offered to the city specialist. True, he cannot narrow his practice down to some small compartment of, say, surgery or general practice, but this is no tragedy. It seems to me that we are getting over-specialized, that we are wrong when we say that a good general surgeon with three to five years training is not capable of taking care of the fracture, that it must be sent to the orthopedist; or that all anorectal conditions should be referred to the proctologist; or that all gynecological conditions should go to the gynecologist. What if the man with the fracture also has a ruptured spleen or has sustained some internal injury? Is he better in the hands of a man widely trained in surgery, or in the hands of one who knows only how to take care of his fracture? As has been suggested, specialism is going too far. We are trying to take care of one little part or disease and losing sight of the patient. At this point the hospitals in the city need to pause and take a fresh look at the problem of over-specialization. Many hospitals are tending to forget the general practitioner and his need for hospital facilities and laboratories if he is to practice good medicine. They should examine their methods of staffing. Instead of making the hospitals islands of privilege for the specialties and their subgroups,

the staff should be broadened so that the general practitioner may be able to take care of any case for which his capabilities and training are sufficient. Fortunately the trend towards overspecialization is beginning to wane. Not so many men are specializing and many of the young specialists are leaving the larger city to settle in the smaller town.

Many men think that there is a much better chance in the city financially. The city man may be able to command higher fees, but his expenses in maintaining an office are higher and it costs him much more to live on the same plane as his country cousin. Ordinarily it takes him longer to get established; therefore, his peak productive period is reached much later, and lasts a shorter time than it does in the smaller town. Actually, the lifetime net income derived from the practice of the small town man may be as much as that of the city physician.

In the past, the relatively low incomes of certain areas made the cost of good medicine seem prohibitive. This undoubtedly holds true at the present time, but if the community will change certain of its habits, this condition can be overcome. The principle of insurance, of spreading the cost over the entire year, will enable many people to budget their medical expenses successfully. Blue Cross and Blue Shield Insurance must be sold in the rural areas as well as in the towns. Communities that are in the habit of paying their doctor only occasionally must realize that he also has to live.

It is true that the man in the larger town may attain a larger place in the national picture of medicine. His opportunities and means of research are greater. But while the man in the smaller town does not have the same facilities for research, fortunately a pencil and a notebook are cheap. Any man armed with these, with the ability and the desire to work, and with an inquiring mind, can do creditable research. Sir William McKenzie did. Dr. George Bond at Bat Cave has attracted nation-wide attention by his work. The big discoveries do not always come from the largest clinic. A new idea or approach, coupled with hard work, may solve some of our so-called unsolvable problems. Banting, the discoverer of insulin, was a country practitioner.

After all, money and national prominence are not the only rewards that must be considered—the esteem of your fellow man, his friendship and his trust mean much. Many a good general practitioner is the friend, the councillor, the father confessor, as well as the doctor to his patients. To him there comes the knowledge of work well done, the joy of being of service to others, the winning of the respect and confidence of people, the chance to observe the result of his work. He has a higher position in his patient's heart than the well-known specialist will ever receive. Perhaps these factors cannot be measured in dollars, but they *are* rewards, very satisfying to anyone fortunate enough to earn them.

And now, what is the part of the university, the medical school, the big hospital, the medium-sized hospital and the nurses' training centers in the problem before us? What is their place in the scheme of better medical care and better distribution of doctors? The medical school should study its function, its methods of recruitment, its curriculum and its aims. While its primary aim should be to graduate men and women well-grounded in the fundamentals of medicine and capable of practicing it, that is not enough. It must teach not only the scientific side of medicine but also the arts and ethics of medicine. The education of a young man coming out of medical school today must be such that he is and will continue to be morally fit to practice good medicine. His education must enable him to meet the practical problems of his profession today, and at the same time furnish a sufficiently strong foundation on which to build his success in any branch of medicine that he may enter. He must be aware not only of his knowledge and capabilities but also of his ignorance and self-limitations. Does he realize that his education is just begun and should continue as long as he lives? Is the patient to him just a case or a disease instead of a human being who is paying him the very high compliment of trusting him with his life? The answer to these questions will determine whether he will practice good or poor medicine. He must learn the answers somewhere along the way. The university, his preceptors, the staff members of the hospital—all have a big responsibility in teaching him the right answers.

The second great function of the medical school is research, which must be both basic and applied in nature. Basic research is the foundation upon which all of our applied research must rest. More of this must be done. The university must encourage a continuing development of new research techniques and their application to broaden our field of knowledge. We have need of these research men. The recognition of the importance of this function is so great that many schools are perhaps forgetting their primary function of teaching, and turning to the research man to head up the various professorships in the medical school. While I would be the last to decry the importance of the research man in the field of medicine, ability in this field does not necessarily make him a good teacher. In this age of specialization, he may have spent so much time in the laboratory that he has neglected the clinical side of medicine. His knowledge and experience may not be sufficient to impart sound clinical training to the medical student. In addition to the research man, however valuable, we must also have men with broad clinical experience who are capable of imparting their knowledge to others preparing to teach in our medical schools.

The medical school has another responsibility perhaps not as readily recognized. It has a responsibility to its graduates, the medical profession and the community. To its graduates it owes the responsibility of directing their postgraduate studies. It should see that their internships and residencies will give them the necessary training for their life work, whether general practice or specialization. The smaller hospitals, as well as the larger institutions and university hospitals, should be integrated in this problem of graduate training. At present the small hospital is totally neglected; this in spite of the fact that two-thirds of the graduates will probably use these less extensive facilities for practice. To improve its own practices, the small hospital needs the discipline of teaching others. It needs the inflow of new ideas that would come from associating itself with a larger center. A combination of internship and residency in both a large and small hospital would have much to offer. In Colorado this has been most successful. In Michigan the policy of sending out university residents and assistant residents to the smaller hos-

pitals has been very profitable. The resident does not lose by his training in a smaller hospital; rather, he does more and gets a better perspective of his work. In addition, the long stay in the city is broken.

There is another way in which the medical school can help the smaller hospital and at the same time help itself. There is a need for certain specialists who will do part time work in the smaller community, particularly in pathology and roentgenology. The medical school can always use more teachers; many young men who would like to stay the four or five years necessary for sound training or would like to stay on at the university are for financial reasons forced to enter practice after one or two years' training. The smaller hospital or group needing such a part-time specialist could arrange with the university to supplement his salary in return for part-time work in the hospital. Medical care would be improved at the small hospital, the man would receive enough pay so that he could finish his training, and the university could keep certain brilliant residents or instructors who might otherwise be lost. In addition, the school would have a much better idea of the conditions in the field and could change its course to meet any deficiencies discovered. Warren at Yale has very successfully taken care of the pathology of a number of small hospitals in Connecticut. Vanderbilt has provided for the pathology and sometimes the radiology of a number of small hospitals in southern Kentucky, middle Tennessee and northern Alabama. I know the system works well because we in Bowling Green have tried it.

Furthermore, there should be a broader exchange of internes and residents between various hospitals. If not, the problem of inbreeding becomes very important. The man trained in one hospital tends to be narrow and perhaps intolerant to a different approach to a problem, whereas if he had worked in a second hospital, he would tend to be broader and more willing to accept new ideas. This interchange should be effected in the second or third year of internship when the man would have acquired some judgment and should be more able to judge accurately the value of the new ideas.

I believe, moreover, that if there were

an easier way for a man to get back into a residency training program after he has had some practical experience in private practice, the individual, the training program, and the hospital—all would benefit. When a man has been in private practice for a while, he knows what type of practice interests him, and what type of special training he wishes to acquire. He is more aware of his own deficiencies and weaknesses and is in dead earnest in his desire to improve himself. He has a broader background into which he may fit his specialty. He will work harder because he has a definite goal. He is more likely to carry his hard-won knowledge back to his own community.

Not only the hospitals, but the medical association as well has need of improvement. The medical association must see that the community gets good advice on its health problems, of which medical care is only a part. It must advise the community not only in medicine but also on nutrition, immunization, environmental sanitation, health education, school health, avoiding farm hazards, promotion of hospital facilities, nurse and physician recruitment, and the promotion of voluntary hospital and medical care insurance. It must take the lead, but it must cooperate with the rural health council or others interested in better health.

The medical association must cooperate with the medical school in seeing that the medicine it teaches is practical, giving its graduates a firm foundation for the future practice of medicine. It must see that sufficient young men and women make medicine or some of its branches their career, and that they are recruited for the school. Particularly it must see that only those of satisfactory character and intelligence are directed toward medicine. It must encourage the acceptance of youth from the areas of inadequate medical care. Let the physicians, as preceptors, also take the medical students in their homes during the summer vacations to teach them the everyday side of medicine.

The medical association must cooperate with the hospital and with the nursing profession in seeing that the vital service of the latter is taken care of. It seems to many thinking physicians that the nursing profession is drifting away from bedside nursing to become a supervisory profession. This area of bedside nursing is

too vital to good medical care to be neglected. We must get together and see that sufficient numbers of individuals are trained efficiently to do bedside nursing, call them nurses, nurses' aides, practical nurses, or what you will. This will require more than two or three large hospital nurse-training centers. Many of the smaller approved hospitals must develop a training program. Perhaps the nursing profession should plan a program in which the fundamentals of bedside and good nursing care are taught in the first two years, giving the nurse a degree or title. Then, if more specialized training in some field of medicine or supervisory training is desired, let the nurse continue her course of instruction for a third or fourth year with an appropriate degree or title for the extra work. It seems to me that the nursing profession should examine its course of instruction; more and more it is becoming classroom work, and less and less, practical care of the patient. In medicine we feel that it is important to examine and treat the patient. No matter how many books a person reads, unless he applies his theory to practice he will never be a good physician or nurse.

In the foregoing discussion, I have suggested means of getting better medical care to the people. I have pointed out that the existing situation is not due to the selfishness of the physician. It is natural for all of us to want the best, in medicine particularly. We can achieve better medical care if we work together.

There are certain conclusions that we can draw from this study:

1. Many communities that think they need medical care are actually receiving better care than statistics show. Many communities without a physician, or with only one physician, are receiving satisfactory medical care from some neighboring town.

2. The day is gone when we can be so prodigal of our medical care as to make the doctor drive eight to ten miles for a headache. More and more will we tend to use our hospitals for our serious cases and our offices for the minor ones, at a great saving of the doctors' time which can be utilized in looking after more patients. Better assistants, better antibiotics, better laboratories, better diagnostic facilities—all can aid in giving more and better medical care to all.

3. A community actually needing better medical care can relieve the situation

(a) By making itself a better place in which to live

(b) By sending its sons and daughters to medical, nurses, and technician schools, and insisting upon their coming back home often enough to feel that they are still a part of the community

(c) By building adequate hospital facilities to take care of its own needs. This of itself will attract physicians or nurses, because it gives them satisfactory working conditions

(d) By decentralizing the training of nurses, technicians and allied personnel. By doing as much of the training at the local hospital as possible, and sending the students away only for the part of their training that they cannot get at home. Our present nurses program is designed to create a scarcity—to funnel all of our potential nurses to the cities. It does not take into account the needs of the smaller communities.

4. Medical schools can aid greatly in a better distribution of doctors, and in attaining better trained medical care by adopting certain policies:

(a) By taking a certain number of applicants from areas needing medical care or willing to practice there

(b) By seeing that students serve preceptorships to physicians all over the state, both to give them a practical view of medicine and to give them some time away from the university. Many will find the smaller places more to their liking, but they must have the opportunity to find out

(c) By arranging their course of instruction and their residency training so that there is a better balance between the general practitioner and the specialist, and

(d) By working with the smaller hospitals to give them not only the part-time specialists that they need, but also internes and consultants as well.

5. The medical profession or association must be the leader in the improving of health standards of the community, studying and advising better ways to meet its medical problems.

6. Finally, the individual studying medicine should take a closer look at the situation. The country or small town has many rewards, many compensations and a very satisfactory way of practicing medicine if one will adopt its way of life.

The thoughtful consideration of these suggestions and conclusions will, I sincerely hope and believe, go far toward the accomplishment of better medical care in Kentucky.

The JOURNAL *of the* Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

J. Duffy Hancock, 704 Brown Building, Louisville.....	President
Clyde C. Sparks, Ashland.....	President-Elect
Robert O. Joplin, Brown Building, Louisville.....	Vice-President
Wyatt Norvell, New Castle.....	Vice-President
Leon Higdon, Paducah.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville.....	Treasurer
Charles A. Vance, 271 W. Short Street, Lexington.....	Speaker
E. W. Jackson, Paducah.....	Vice-Speaker
John E. Haynes, Madisonville.....	Orator in Surgery
Robert S. Dyer, Fincastle Building, Louisville.....	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
W. Clark Bailey, Harlan.....	1954
Thomas V. Gudex, 2006 Grinstead Drive, Louisville (Alternate).....	1954
Bruce Underwood, 620 S. Third Street, Louisville.....	1955
Coleman Johnston, 211 W. Second Street, Lexington.....	1955

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1956
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1955
Third District Delmas M. Clardy, Hopkinsville.....	1956
Fourth District W. Keith Crume, Bardstown.....	1953
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1955
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. M. Stevenson, Brooksville.....	1955
Tenth District J. Farra Van Meter, 183 N. Upper St., Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1954
Twelfth District Garnett J. Sweeney, Liberty.....	1956
Thirteenth District Charles B. Johnson, Russell.....	1955
Fourteenth District John Archer, Prestonsburg.....	1956
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

A RETIRING PRESIDENT ISSUES A CHALLENGE!

One of the most thoughtful and thought-provoking discussions of medical care it has been our pleasure to read is the presidential address of G. Y. Graves, M.D., delivered at the 1953 Annual Session of the Kentucky State Medical Association, and published as a special article in this issue of The Journal.

Like Francis Bacon said about some books, "Dr. Graves' address is worthy of being chewed and digested." Its down-to-earth common sense approach recommends the article for careful reading by every member of the medical profession, including those who heard it first delivered by Dr. Graves to the Association's scientific assembly. It contains too much for even the most careful listener to get all of the meat at one audition.

The causes of physician maldistribution, the role of specialist and general practitioner, the relationships of medical schools to the rural profession and hospitals, the problems of nursing and the role of the medical association are included in Dr. Graves' discussion entitled "Toward Better Medical Care in Kentucky." Much of what he said reflects the views of many Kentucky physicians. Rarely, however, has it been said so well.

Every member of the profession can profit from this very clear analysis of these fundamental problems. We urge you to turn to the Special Article Section now and read Dr. Graves' address without delay.

"OUR WIVES AS OUR HELPERS"

The importance of the physician's wife in the success of organized medicine's public service program was properly emphasized in her inaugural address at the 1953 meeting of the Woman's Auxiliary to the Kentucky State Medical Association by Mrs. Clyde C. Sparks, Ashland, new auxiliary president.

Reviewing the accomplishments of organized medicine on the people's behalf and enumerating some of the problems that remain unsolved, Mrs. Sparks issued an appeal to all women eligible for auxiliary membership in Kentucky to exercise their privilege and responsibility by full participation. She likewise urged upon the local auxiliaries the wisdom of helping the medical societies in their public service activities.

High in priority was her suggestion that physicians' wives keep themselves well informed. She specifically recommended that Kentucky physicians' wives subscribe to "The Bulletin" of the AMA Woman's Auxiliary. As she said, "The subscription is only \$1.00 a year, and it is a wise investment for physicians' wives who are to be informed leaders."

Mrs. Sparks cited civil defense, nurse

recruitment, promotion of "Today's Health" and other public service activities of the medical profession as worthy objects of individual and collective support by Auxiliary members.

"High officials in organized medicine believe," Mrs. Sparks said, "that public relations is the greatest role that the Auxiliary has to play at the present time."

"Undoubtedly, most Americans do not know of the extensive AMA activities devoted to their welfare. This country has the finest medical schools, the most modern and efficient hospitals, and by far the highest standards of medical care in the world. We Auxiliary members have a task of letting the physician's voice be heard, reporting their accomplishments, their views and their aims. Our advice and sympathy are welcome in dealing with health problems, so we are urged as individuals to participate in matters of health in our national organizations such as PTA and women's clubs whenever the opportunity arises."

Mrs. Sparks' clear call to the Auxiliary is appropriate and proper. The

(Continued on page 518)

President's Page

TEAM WORK

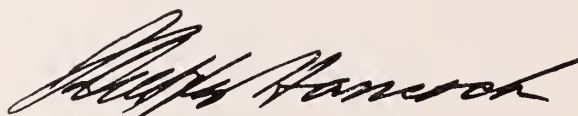
As the football season advances, we hear more and more about carrying the ball. Prominent players are heroes today and goats tomorrow. They cannot perform without the support of their team members. Sometimes they fall down on the job even with such support. Success is not determined by who carries the ball but rather by getting the ball carried.

Preliminary committee appointments have been made. More will be made later. While a careful effort has been and will be made to select the proper man for the proper job, it is likely that some will be dissatisfied. However, all of you are urged to take your work seriously and help to carry the ball.

Committee deliberations will be more effective if they are unhurried. As problems arise they should be considered promptly and thoroughly. Even if no matters are referred to certain committees, it would be well for each of them to meet, allowing the members to become acquainted and to discuss the scope of work that should come under their jurisdiction.

Quite often seemingly unimportant questions may develop into rather significant affairs. Any problem presented to a committee deserves judicial consideration. To a certain extent the official actions of our association are based upon confidence in the wisdom of committee reports. Keep them dependable.

Finally, in our consideration of committees, let us remember that many of them are interlocking. There is no better example than that afforded by a consideration of public relations. While there is a specific committee for that subject, it will present itself intangibly in all your official deliberations and your private individual actions as well. The most important ball we have to carry is the improvement of our service to the public.



PRESIDENT

ORGANIZATION SECTION

House Chooses Dr. Sparks, Ashland New President-Elect

Clyde C. Sparks, M.D., Ashland, Chairman of the Council for the past two years, and long active in scientific and organizational work of the Kentucky State Medical Association, was unanimously chosen President-Elect at the closing session of the House of Delegates, Wednesday evening, September 23. He will take office as President at the conclusion of the 1954 meeting.

After thanking the Delegates for the honor they had conferred on him, Dr. Sparks pledged his best efforts and asked the members for their suggestions and cooperation. In addition, he briefly directed the attention of the Delegates to the five dangers the profession now faces: (1) complacency within the profession, (2) encroachment of governmental agencies now offering medical care, (3) indirect efforts of labor unions to control the practice of medicine, (4) growth of the corporate practice of medicine, and (5) the potential danger of frontal assault by the social planners in high governmental positions.



Dr. Sparks is past president of the Kentucky Obstetrical and Gynecologic Society, a fellow of the American College of Surgeons, the Southeastern Surgical Congress, and the Kentucky Surgical Society. He has been a director of the Kentucky Physicians Mutual and the Kentucky Blue Cross Plan.

Chosen as Vice-Presidents were:

Robert O. Joplin, M.D., Louisville, (Central)

Wyatt Norvell, M.D., New Castle, (Eastern)

Leon Higdon, M.D., Paducah, (Western)

Bruce Underwood, M.D., Louisville, was re-elected as Secretary for a five year term and Woodford B. Troutman, M.D., Louisville, was selected for another five year term as Treasurer of the Association. Dr. Underwood was named Delegate to the AMA for the term beginning January 1, 1954, to December 31, 1955.

Coleman Johnston, M.D., Lexington, was elected alternate AMA Delegate for the same period.

With the abandonment at the 1955 meeting of the practice of having the Orations in Medi-

cine and Surgery during the Scientific Assembly, as a result of by-law changes at the 1953 session of the House of Delegates, Robert S. Dyer, M.D., Louisville, will give the last Oration in Medicine at the 1954 meeting and John E. Haynes, M.D., Madisonville, will give the last Oration in Surgery.

Second Largest Attendance, 1,565, Present at 1953 Session

Attendance records at the 1953 Annual Meeting for routine state sessions were broken as a total of 963 physicians registered for the September 22, 23, and 24 meetings at the Columbia Auditorium in Louisville.

A total of 1565 registered at the Auditorium in all classifications. This figure does not include the 188 members of the Woman's Auxiliary to the KSMA that registered at their annual session which was held in the Brown Hotel.

Essayists both state and national, in the Scientific Assembly, expressed themselves as well pleased with the attendance, which was better than average, according to experienced observers.

Exhibitors were pleased with attendance at the commercial booths, according to the reports of the Liaison Committee of the Medical Exhibitors Association covering the annual session.

According to records available in the Headquarters Office, only the Centennial meeting attendance, which was held in 1951, exceeded the 1953 registration totals. Of the physicians registered, 788 or 43 per cent of the total active KSMA membership were present. This percentage is considerably higher than the national average.

Registration figures by classification follow:

Members	788
Guest Physicians	75
Guests	72
Exhibitors	153
Interns and Residents	100
Registered Nurses	31
Medical Students	292
Technicians and Office Assistants	54

1565

'Advances in Medicine' Highlighted By Edward McCormick, M.D.

The advances of American medicine in both its scientific and its socio-economic aspects, the tasks before the profession and the positive program of organized medicine were highlighted by Edward J. McCormick, M.D., Toledo, Ohio, president of the American Medical Association, in an address delivered at the President's Luncheon, September 22, 1953. The



Distinguished guest speaker at the President's Luncheon, Edward J. McCormick, Toledo, Ohio, AMA president, inspires attending physicians and guests with his convincing address, "Firm Ground For Medicine."

speech, transcribed by Louisville radio station WAVE, was broadcast later the same day.

Dr. McCormick singled out for praise the work currently being done by the Kentucky Rural Medical Scholarship Fund in helping meet the need of rural communities for medical service and the activities of the KSMA Rural Health Committee in promoting the voluntary rural health council movement in the Commonwealth. He emphasized the importance of state medical association annual meetings as part of the continuous efforts, through post-graduate training, by organized medicine to insure the highest level of medical care to all patients.

He enumerated many of the activities being carried on by the American Medical Association on behalf of the public and the profession. Among them, he cited work in rural health, medical education, medical economics,

civil defense, indigent care, industrial health and chronic illness. He reported that the AMA budget for such items amounts to approximately \$10,000,000 annually.

Dr. McCormick struck out against federal subsidies, other than one-time grants for construction and similar purposes, to medical education. He reminded his audience that the dangers of federal control which may accompany continuing programs of federal financial assistance are real.

Dr. Vance Succeeds Dr. Houston As Speaker of the House

Charles A. Vance, M.D., Lexington, past KSMA president and former chairman of the Council, was elected to serve a three year term as Speaker of the House of Delegates at its final session September 23.

Hugh L. Houston, M.D., Murray, the first to hold the office of Speaker under the re-organized procedures of the House of Delegates, retired after receiving unanimous expressions of appreciations for his services from both the House of Delegates and the Council. Dr. Houston was President of the Association in 1949-50.

Dr. Vance, who is Chairman of the Board of the McDowell Memorial Foundation, and new Chairman of the Professional Relations Committee, has been serving as Vice Speaker of the House. E. W. Jackson, M.D., Paducah, a past president of the Association, was named Vice-Speaker for the coming three years.



President G. Y. Graves M.D., Bowling Green, introduces distinguished guests at the Speakers Table during the President's Luncheon, Brown Hotel Roof Garden, September 23.

Dr. Van Meter to Head Council; New Councilors Listed

J. Farra Van Meter, M.D., Lexington, Councilor from the Tenth District, was made Chairman of the Council at the annual re-organization meeting of the Council, Thursday, September 24, 1953. Dr. Van Meter, who has been Vice-Chairman of the Council for several years, will automatically be Chairman of the Executive Committee of the Council.



Dr. Van Meter, who succeeds Clyde Sparks, M.D., Ashland, has held a number of key positions in the Fayette County Medical Society and the Association in recent years. He is a Fellow in the American College of Surgeons and the Kentucky Surgical Society. He is the current president of the Kentucky Division of the American Cancer Society.

Branham B. Baughman, M.D., Frankfort, Councilor from the Seventh District, was elected to serve as Vice-Chairman of the Council and the Executive Committee. Dr. Baughman is past president and a member of the Kentucky Physicians Mutual Board and Chairman of the KSMA Legislative Committee.

Five new Councilors were elected at the final session of the House. They are:

W. Keith Crume, M.D., Bardstown, Fourth District, to succeed J. I. Greenwell, M.D., New Haven;

J. M. Stevenson, M.D., Brooksville, Ninth District, to succeed J. R. Cummings, M.D., Flemingsburg;

Garnett J. Sweeney, M.D., Liberty, Twelfth District, to succeed Carl Norfleet, M.D., Somerset;

Charles B. Johnson, M.D., Russell, Thirteenth District, to succeed Clyde C. Sparks, M.D., Ashland;

John Archer, M.D., Ashland, Fourteenth District, to succeed Paul B. Hall, M.D., Paintsville.

In addition, five men who had previously served as councilors were returned to office. They are:

J. Vernon Pace, M.D., Paducah, First District;

Walter L. O'Nan, M.D., Henderson, Second District;

Delmas Clardy, M.D., Hopkinsville, Third District;

Branham B. Baughman, M.D., Frankfort, Seventh District;

Hugh Mahaffey, M.D., Richmond, Eleventh District.

This is the first election of Councilors since the 1952 by-law change, calling for the staggering of expirations so that five men will be elected each year to serve a three-year term. As a result of the change in procedure, the districts to elect councilors in 1954, 1955 and 1956 are as follows:

Districts to elect in 1954 are: 5, 6, 8, 11, and 15;

Districts to elect in 1955 are: 2, 7, 9, 10, and 13;

Districts to elect in 1956 are: 1, 3, 4, 12, and 14.



The Honorable John M. Robsion, Louisville, Congressman from the Third District of Kentucky, chats with Clyde C. Sparks, M.D., Ashland, 1952-53 chairman of the KSMA Council, and J. Duffy Hancock, M.D., Louisville, 1953-54 president, before the President's Luncheon, Roof Garden, Brown Hotel, September 23.

Chest Physicians Elect Officers

John S. Harter, M.D., Louisville, was elected president of the Kentucky Chapter of the American College of Chest Physicians for the 1953-54 year at its annual meeting, September 23, held in conjunction with the Kentucky State Medical Association Annual Meeting in Louisville.

There are approximately 38 members of the Kentucky Chapter of Chest Physicians who also elected Lawrence A. Taugher, M.D., Louisville, vice-president; Alvin B. Mullen, M.D., Louisville, secretary-treasurer. Paul H. Holinger, M.D., Chicago, professor of Bronchoesophagology at the University of Illinois College of Medicine, delivered an address at the meeting entitled, "Congenital Anomalies of the Trachea and Bronchi."

House Raises Annual Dues at Busy, Well-Attended Session

Attendance at the 1953 House of Delegates meeting at the Annual Session topped the national average and its own average by a few percentage points, indicating, according to KSMA officials, a wholesome interest in the business of the Association.

Increasing of the annual dues of the Association from \$25 to \$35 a year was among the more important actions taken in a busy final session, Wednesday evening, September 23. Prior to the meeting, each delegate had received special information from the Chairman of the Council on the financial status of the association and what would be required if the Association were to maintain its present services and add a small amount to the reserves each year.

Action on the matter of admitting colored physicians to the membership of the Association was deferred. It was indicated that the Council had appointed a special committee to make a careful and exhaustive study on the matter. The Delegates were told the committee had already gone to work on the problem.

The House reaffirmed the necessity of maintaining the principles of "Fee for Service" and "Free Choice of Physicians" as recommended by the Advisory Committee to the UMWA Welfare and Retirement Fund. In addition, it asked the KSMA Committee on Hospitals to consider the "feasibility of organizing a consulting service, to be available to the smaller hospitals throughout Kentucky on request of the hospital management to study the problems of that hospital and advise concerning plant, equipment, organization and management. It is intended that this be an advisory board and not a standardizing or "rating" board, another recommendation of the UMWA group.

By-laws changes voted by the House call for the abandonment of the policy of having Orations in Medicine and Surgery, beginning with the 1955 Annual Meeting, abandonment of policy of printing word-for-word accounts of the proceedings of the House in the December issue of the Journal each year, and added a section under Chapter VII providing for the temporary filling of the office of District Councilor, should the office be vacated between sessions of the House.

Recommendations of the retiring president, G. Y. Graves, M.D., Bowling Green, were accepted by the House. Highlighting these was the proposal that special consideration be given to the selection of the vice-president each year from the section of the state the President that

year is from, and that measures be taken to adequately prepare the vice-president to assume the office of president, should it become necessary.

A digest of the reports mentioned above along with a digest of all of the reports of the Council, Officers and Committees, with copies of each resolution submitted to the House, together with the recommendations on each report and resolution with the final action of the House, will appear in the January issue of the Journal of K.S.M.A.

A full and complete set of all reports, resolutions and Reference Committee recommendations, together with final action of the House on these reports and resolutions will be kept on file in the Headquarters Office of the Association and will be available to any member of the Association who may wish to see it.



Mrs. R. Haynes Barr, Owensboro, receives the KSMA Distinguished Service Medal posthumously for her late husband from Bruce Underwood, M.D., secretary and general manager, at the Annual Dinner, September 24.

KSMA Confers Award on Dr. Barr For Distinguished Service

For the first time in KSMA history, the distinguished service medal was conferred on a deceased member of the association, R. Haynes Barr, M.D., of Owensboro, who died May 5, 1953, while serving the office of President of the Kentucky State Medical Association.

At the annual banquet Mrs. R. Haynes Barr received the award conferred posthumously on her husband, and said, "It can be truly said that Haynes gave his life for his community and for his fellow man."

Bruce Underwood, M.D., secretary and gen-

eral manager of the Kentucky State Medical Association, praised the memory of Dr. Barr as he presented the award.

"Dr. Barr's keen insight into the problems the profession faces, his abundant zeal in attempting to find the answer to them, and his courage and willingness to stand by his convictions endeared him to the hearts of us all and insured him a place among the all time greats the medical profession of Kentucky has fathered," Dr. Underwood said.

AMA Clinical Session Featured on "March of Medicine," Dec. 3

"Highlights of the AMA's seventh annual clinical session in St. Louis" will be the third and concluding feature of the popular "March of Medicine" television series to be broadcast December 3, at 9 p.m. CST, over NBC. Sponsored by Smith, Kline and French Laboratories and the American Medical Association, the fall series is being telecast once a month over 70 NBC network stations in the United States and Canada.

One outstanding feature of the AMA clinical session will be an exhibit symposium on the prevention of traffic accidents, including a discussion of the responsibilities of the physician in telling his patient when not to drive and the care of the injured after an accident. More than 150 papers by outstanding physicians will be presented. The Scientific Exhibit of about 80 displays will be correlated as far as possible with the clinical presentations, and as an added attraction, special arrangements have been made for color television to be shown.

The first telecast, "New Hope for the Cardiac," broadcast October 8, featured a progress report on heart disease, the nation's number one health problem. On November 5, a report was presented on the extent of research being carried out on cancer, the nation's second major health problem. These live demonstrations from leading medical centers are being telecast to create greater public awareness of the extensive research being carried out by the medical profession, says the AMA.

Eleventh District to Meet Nov. 18

The Eleventh District Council will hold a dinner meeting at the Benault Inn, Richmond, Wednesday evening, November 18, at 6 p.m., said Hugh Mahaffey, councilor, and presiding officer of the meeting. Included in the evening's program will be a scientific discussion, "Chest Pains" by J. Murray Kinsman, M.D.,

Louisville, Dean of the University of Louisville School of Medicine.

Sharing the spotlight with Dr. Kinsman will be Bruce Underwood, M.D., Louisville, secretary and general manager of the KSMA; J. Duffy Hancock, M.D., Louisville, president of the KSMA; and Mrs. Clyde C. Sparks, Ashland, president of the Woman's Auxiliary to the KSMA who have also been asked to participate in the program. Dr. Hancock will speak on "KSMA Activities."



J. I. Greenwell, M.D., New Haven, steps into the spotlight to receive the KSMA General Practitioner's Award from Bruce Underwood, M.D., secretary and general manager, during the ceremonies when awards were presented at the KSMA Annual Dinner, Brown Hotel, September 24.

Dr. Greenwell Receives G.P. Award At KSMA Annual Dinner

J. I. Greenwell, M.D., New Haven, selected as Kentucky's outstanding general practitioner of the year by the 1953 House of Delegates, was the recipient of the first scroll awarded for this distinguished honor, which was conferred on him at the Annual Dinner, September 24, by Bruce Underwood, M.D., secretary and general manager of the Kentucky State Medical Association.

Dr. Greenwell has spent his entire practice of more than 50 years in Nelson County and is contemplating no retirement in the immediate future. He has been a councilor of the Kentucky State Medical Association for 30 consecutive years, and in his medical career has delivered more than 4,000 babies.

In December Dr. Greenwell's name will be presented in nomination for General Practitioner of the Year before the House of Delegates of the American Medical Association at the St. Louis Clinical Meeting.

Charleston Conference Attracts 8 KSMA Members, September 13

G. Y. Graves, M.D., Bowling Green, past president of the Kentucky State Medical Association, and Carl Fortune, M.D., Lexington, Chairman of the Advisory Committee to the UMWA Welfare and Retirement Fund, headed an eight member KSMA delegation to the Second Conference on Medical Care in the Bituminous Coal Mine Area in Charleston, West Virginia, September 13, and 14.

About 70 attended the conference, which was sponsored by the Committee on Industrial Medical Care of the American Medical Association's Council on Medical Service for the states of Kentucky, Pennsylvania, Tennessee, Virginia and West Virginia. Clark Bailey, M.D., Harlan, is a member of the AMA committee.

In giving the report of the Kentucky Delegation, Dr. Fortune re-stated his committee's policy of holding strictly to the basic principle of "fee for service" and "free choice of physician," in attempting to solve the medical care problems of any section of the state. It was also pointed out by Dr. Fortune that no medical care scheme for the care of the people in the coal fields had yet been devised that provided adequate home and office care.

C. Dana Snyder, M. D., Hazard, served as chairman of Special Committee Number One. The Conference reviewed recommendations made by the 1952 conference, and heard reports from the five state medical association spokesmen, and the five UMWA area directors. The afternoon sessions were divided into five special committees with at least one State Medical Association on each committee.

Some of the matters considered by the five special committees included: problems of medical practice such as excessive surgery, obstetrical care and its abuses, recruitment and training of physicians, medical and hospital facilities, health education, and organization and function of the liaison committee.

Other Kentucky physicians attending the conference were: Charles B. Johnson, M.D., Russell; George F. Brockman, M.D., Greenville; Clark Bailey, M.D., Harlan; Asa Barnes, M.D., Louisville.

Medical Advisory Committee Meets

The first meeting of the recently formed KSMA Medical Advisory Committee for the Blue Cross Hospital Plan was held September 23 for the purpose of planning a program which

would assist Blue Cross in adequately and properly meeting the hospital service needs of its members, said Sam A. Overstreet, M.D., Louisville, Chairman of the Committee.

J. Ray Ingram, Assistant Director of Blue Cross, pointed out the additional expense Blue Cross often has borne because of common abuses which occur in its overall picture. Mr. Ingram stated that it was the hope of Blue Cross, through the medium of the Medical Advisory Committee, that many of these more common abuses could be overcome with proper education and presentation of facts to the medical profession.

Dr. Underwood Heads Committee to Plan Public Health Association

Bruce Underwood, M.D., will preside as chairman of a committee which is promoting the formation of an American Association of Public Health Physicians to meet for a full discussion of the proposal at the Statler Hotel in New York City at 8:30 p.m. on Monday, November 9, said George F. Lull, M.D., secretary and general manager of the AMA, in a current issue of his Secretary's Letter.

All physicians engaged in full-time public health activities are cordially invited to attend the meeting, which is scheduled to coincide with the American Public Health Association meeting.

One of several aims and objectives of the association will be "to provide a greater degree of leadership at the national level on the part of all public health physicians in the field of public health in the interest of better health for the people of the United States and her territories," Dr. Underwood stated.

"Also," he continued, "the association will endeavor to promote legislation and to influence public opinion at the national level, and strive to represent public health physicians in their relationships with other national associations and groups."

While working for improved practices in the field of public health administration, the association will serve as a liaison group between the American Medical Association and the American Public Health Association in an effort to bring both groups closer together in the public interest. At all times emphasis will be placed on promoting the best interests of public health physicians, Dr. Underwood stated.



Before taking their places at the Speakers Table at the Annual Dinner, September 24, G. Y. Graves, M.D., Bowling Green, 1952-53 president; J. Duffy Hancock, M.D., Louisville, 1953-54 president and Clyde C. Sparks, M.D., president-elect, Ashland, enjoy a story.

Allan Kline Addresses 500 at KSMA Annual Dinner

Allan B. Kline, president of the American Farm Bureau Federation, at the climaxing KSMA annual dinner at the Brown Hotel, September 24, encouraged those attending "to get their sights straight and values judged accordingly, and the prospects of freedom would increase."

In a colorful address, entitled "Promises and Prospects," delivered before approximately 500 physicians and guests, he presented the farmer's viewpoint on medical care, pointing out that "the farmer was at the end of the line as far as medical service was concerned." He warned that high costs of illness could not be dismissed with the excuse that insurance would suffice.

Other highlights of his speech included a review of the United States' position of importance in world trade, the necessity for having an adequate supply of physicians available for national defense, and the desirability of the individual continuing to develop his ability and reason for achievement of a peaceful world.

J. Duffy Hancock, M. D., Louisville, was installed as the new president of the KSMA by the retiring president, G. Y. Graves, M.D.,

Bowling Green. Dr. Hancock presented Dr. Graves with the Past President's key following the inaugural ceremony, as his first official act as the new KSMA president.

Council Appoints Committees for 1953-54 Year

Standing Committees of the Council for the 1953-54 year were elected at the annual reorganization meeting of the Council Thursday, September 24, during the last day of the Annual Meeting.

In making the announcement of the appointments, J. Farra Van Meter, M.D., Lexington, new chairman of the Council, said the Council was announcing the newly elected committees at an early date as possible in order that work of the committees might not be interrupted or new projects that were being planned might not be delayed.

Personnel of the Committees is as follows:

Committee on Medical Service

G. L. Simpson, Greenville, Chairman, (term expires 1954)

Walter Cawood, Harlan, (term expires 1956)

John Haynes, Madisonville, (term expires 1956)

Cy Waldrop, Williamstown, (term expires 1956)

Alfred Miller, Louisville, (term expires 1954)

Public Relations Committee

Glenn Bryant, Louisville, Chairman, (term expires 1955)

David Cox, Louisville, (term expires 1956)

William Pennington, Lexington, (term expires 1956)

C. Walker Air, Ludlow, (term expires 1955)

Edward Wilson, Jr., Pineville, (term expires 1954)

Education Campaign Committee

W. Vinson Pierce, Covington, Chairman

George P. Brockman, Greenville

George W. Pedigo, Louisville

Richard G. Elliott, Jr., Lexington

Wendell V. Lyon, Ashland

Charles B. Stacy, Pineville

B. N. Pittenger, Paris

Legislative Committee

B. B. Baughman, Frankfort, Chairman

Thomas V. Gudex, Louisville, Co-Chairman

Norman Adair, Covington

Rufus Alley, Lexington

Guy Aud, Louisville

Clark Bailey, Harlan

Daniel Bower, Barbourville

J. Gant Gaither, Hopkinsville

Orion Higdon, Paducah

C. C. Howard, Glasgow

E. W. Jackson, Paducah

Billy K. Keller, Louisville

Charles B. Stacy, Pineville

Charles B. Wathen, Owensboro

Advisory Committee to the Editor

Guy Aud, Louisville, Chairman

Richard J. Rust, Newport

James E. Hix, Owensboro

tions by WAVE, WGRC and WKLO, all broadcasting from Louisville.

Guest speakers who served as panelists or interviewees included: Colonel William H. Amspacher, M.D., Fort Sam Houston, Texas; O. B. Coomer, D.D.S., Louisville; Donald A. Covalt, M.D., New York, New York; George T. Harrell, M.D., Winston-Salem, North Carolina; Harold E. Harris, M.D., Cleveland, Ohio; H. Close Hesseltine, M.D., Chicago, Illinois; Paul H. Holinger, M.D., Chicago, Illinois, and Edward J. McCormick, M.D., Toledo, Ohio.

KSMA members who joined in the coverage to bring the public a glimpse of a state medical association at work included: J. Edmund Bickel, M.D., Owensboro; G. Y. Graves, M.D., Bowling Green; J. Duffy Hancock, M.D., Louisville; W. O. Johnson, M.D., Louisville; Coleman C. Johnston, M.D., Lexington; J. Murray Kinsman, M.D., Louisville; O. B. Murphy, M.D., Lexington; Arthur M. Schoen, M.D., Louisville; Clyde C. Sparks, M.D., Ashland, and J. Farra Van Meter, M.D., Lexington.

New Officers Elected

The Kentucky Psychiatric Association recently elected Arthur Kasey, M.D., Louisville, new president for 1953-54 year at its thirteenth annual meeting in Louisville, September 21. Other new officers are Carl Wiesel, M.D., Lexington, vice-president, Donald M. Moore, M.D., Louisville, secretary-treasurer.

The election was held prior to the Annual Meeting of the Kentucky State Medical Association at the Brown Hotel in Louisville. Guest speaker, Stewart Wolf, M.D., professor of Medicine, University of Oklahoma School of Medicine, discussed "Neutral Integration and Mechanisms of Disease" at the meeting.

Annual Meeting Speakers Appear on Radio and T-V

The most complete radio and television coverage of any annual meeting of the Kentucky State Medical Association was effected during the 1953 session of the Association as six stations cooperated in presenting 17 scheduled broadcasts featuring out-of-state and Kentucky essayists. This was in addition to standard news spots.

Annual meeting speakers appeared on five WHAS-TV and WAVE-TV programs totaling almost two hours telecast time. Almost four hours were devoted to similar radio presenta-



Allan B. Kline, Chicago, president of the American Farm Bureau Federation, captivates Annual Dinner members and guests. He discussed "Promises and Prospects."

Kentucky Physicians Participate in 47th Annual SMA Meeting

Eight Kentucky physicians participated in the scientific program of the Southern Medical Association's annual meeting in Atlanta, Georgia, October 26-29.

In the Radiology Section, two Louisville physicians, Jesshill Love, M.D., President of the Kentucky Radiological Society, and Joseph C. Bell, M.D., presented scientific papers. Dr. Love's paper was entitled, "Coronal Effects Observed White Rotating a Film Within An X-Ray Beam," and Dr. Bell spoke on "The Radiological Examination of the Urinary Tract."

D. Woolfolk Barrow, M.D., and Louis Hamman, Jr., M.D., both of Lexington, lectured on their film, "The Use of Tantalum Mesh in Large or Recurrent Hernias," which was shown as a scientific movie. In addition they displayed a surgical scientific exhibit on "Trends in Treatment of Varicose Veins, Stasis Ulcer and the Post-Thrombophlebitic Syndrome."

Earton T. Smith, M.D., Louisville, presented a paper on "Carcinoma of the Vulva: A Statistical Study," before the section on Gynecology. "Proctologic Oddities" was the title of a paper given before the section on Proctology by James E. Ryan, M.D., Louisville.

Robert Lich, Jr., M.D., Louisville, participated in a panel discussion on "Anesthesia in Urology" at the meeting, and John S. Harter, M.D., Louisville, first vice-president of the Southern Chapter of the American College of Chest Physicians, attended in his official capacity the joint meeting of the American College of Chest Physicians and the Southern Medical Association.

Blue Cross-Shield Seek Clarity on Service Mark Confusion

Considerable confusion has been produced in the mind of the public by the use of service marks and words closely resembling Blue Shield and Blue Cross on medical and hospital insurance policies issued by companies in no way related to Blue Shield or Blue Cross, explained T. O. Meredith, M.D., Harrodsburg, president of Kentucky Blue Shield, Kentucky Physicians Mutual.

A step toward clarification of this situation has been made by national Blue Shield Medical Care Plans in working out an agreement with the Continental Casualty Company of Chicago whereby the company agreed to discontinue the use of the service mark and the words

"Blue Seal" that have identified their policies.

Blue Shield Plans and sponsoring medical societies are deeply indebted to Continental Casualty for its splendid cooperation. It is earnestly hoped that public confusion may be further lessened by some other companies following the exemplary example set by Continental Casualty, Dr. Meredith said.



Presidential small talk is exchanged before the Annual Dinner between Mrs. Karl D. Winter, Louisville, president-elect of the Woman's Auxiliary to the KSMA; Mrs. Clyde C. Sparks, Ashland, president; and Mrs. D. Woolfolk Barrow, Lexington, immediate past president.

Pediatricians Elect New Officers

Lee Palmer, M.D., Louisville, is the newly elected state chairman of the Kentucky Chapter of the American Academy of Pediatrics for the 1953-54 year. Richard G. Elliott, Jr., M.D., Lexington, was elected alternate State chairman, and Margaret A. Limper, M.D., Louisville, was elected secretary-treasurer by mail ballot after the nominating committee met this summer.

Number of Interns and Residents Doubles Since 1940

The number of interns and resident physicians completing hospital training today has doubled the total set prior to World War II, disclosed the American Medical Association in an annual report on internships and residencies in the United States, compiled by the Council on Medical Education and Hospitals.

During the year 1952-53, there were 7,645 interns and 16,867 resident physicians on duty in the nation's hospitals, compared to a total of approximately 12,000 in 1940.

The report pointed out that the number of hospitals offering approved intern training has increased 12 per cent during the last 10 years, while the number of internships available has risen 32 per cent. The Council on Medical Education and Hospitals accredits only those hospitals for the training of the country's physicians that meet approved educational and clinical standards.



J. Duffy Hancock, M.D., Louisville, repeats the presidential oath of office after G. Y. Graves, M.D., Bowling Green, retiring president, at the Annual Dinner inaugural ceremonies, September 24.

Dr. Henry Elected 1st President of Ky. Chapter of Surgeons

M. J. Henry, M.D., was elected the first president of the new Kentucky Chapter of the American College of Surgeons at a meeting in Louisville preliminary to the annual meeting of the Kentucky State Medical Association, September 22.

Other officers of the new organization include: Francis Massie, M.D., Lexington, vice-president; T. J. Drye, M.D., Louisville, secretary; and Clyde C. Sparks, M.D., Ashland; E. W. Jackson, M.D., Paducah; Edward Mersch, M.D., Covington, councilors.

The purpose of the Kentucky Chapter of the ACS will be to strengthen professional ties

among the state's surgeons and to promote better medicine through exchange of information, clinical demonstrations and other scientific meetings. In the past Kentucky has been one of eight states without such an organization.

KSMA Features "Drunk-O-Meter" at State Fair Booth

The Kentucky State Medical Association booth at the Kentucky State Fair, held September 11-19, attracted the attention of many fair visitors and special mention by the Louisville Courier-Journal with its exhibit, "Testing the Drinking Driver" and its actual demonstration of a Drunk-O-Meter.

The Drunk-O-Meter was furnished, along with police officers who demonstrated its use, by the Kentucky State Police. The attractive exhibit, developed to show the progressive effects of alcohol consumption on the brain and the individual's reaction, was provided by the American Medical Association.

Over 80 persons attending the fair volunteered as subjects for tests with the Drunk-O-Meter which measures the amount of alcohol in the person's breath which provides a basis for computing the alcohol in the blood. Substantial crowds were drawn to the booth by each of these test demonstrations.

Kentucky State Police Officers who assisted the KSMA Headquarters Staff in the booth were Sergeant Fred Watson of the police laboratory in Frankfort and Corporal Willard Mitchell, London.

Industrial Health Congress Meets

Physicians from all sections of the United States who are interested in industrial medicine will attend the annual meeting of the Industrial Health Congress of the American Medical Association in Louisville, February 23, to 25, 1954, said Gradie R. Rowntree, M.D. Louisville, Chairman of the KSMA Committee on Industrial Medicine and Surgery.

Carl Peterson, M.D., Chicago, Secretary of the Council on Industrial Health of the AMA, will come to Louisville to assist in planning and coordinating an informative and interesting program for the February meeting. This is the second time that the Industrial Health Congress has chosen a city in one of the southern states to hold its annual meeting. Three years ago, Atlanta, Georgia, was the site selected.

Blue Cross-Shield Plan Seminars

A series of seminars for physicians' secretaries dealing largely with public and physician-patient relations will be sponsored this fall by Blue Cross and Blue Shield Plans of Kentucky in meeting areas determined by Councilor Districts of the KSMA.

The following places have been tentatively chosen as meeting points: Owensboro, Paducah, Hopkinsville, Bowling Green, Bardstown, Lexington, Covington, Frankfort, Cynthiana, Hazard, Corbin, Somerset, Richmond and Louisville. Notices will be sent to all physicians in the Kentucky Medical Directory giving time and place of meeting.



David Cox, M.D., Louisville, 1953 chairman of the KSMA Public Relations Committee, W. Vinson Pierce, M.D., Covington, chairman of the Education Campaign Committee, and George W. Pedigo, M.D., Louisville, chairman of the Advisory Committee on Tuberculosis, inspect literature in the Educational Campaign Committee booth at the Columbia Auditorium

Medical Research Given 3 Million

The Rockefeller Foundation in 1952 appropriated \$3,599,698 for use in medicine and public health, part of which has financed a program of virus research, said Dean Rusk, president of the Rockefeller Foundation.

Over the past 40 years the Foundation's expenditures have been greatest in the field of public health and medical sciences reaching a total of \$227,981,638 this year. Under the current program the Foundation is endeavoring to assist in the solution of medical problems through the support of objective studies and experimentation designed to provide factual, impartial data.

Ob-Gyn Society to Meet April 1

The Kentucky Obstetrical and Gynecologic Society will hold its sixth annual meeting in Frankfort, April 1st and 2nd, 1954, said J. B. Marshall, M.D., Louisville, vice-president. At that time an election of officers for the new year will take place. Robert B. Greenblatt, professor of Endocrinology, University of Georgia, Augusta, Georgia, will be the guest speaker.

New KSMA Members Welcomed

The Kentucky State Medical Association recently welcomed four new physicians into the membership for the 1953-1954 year. The new members are:

Robert McKinley, M.D., Glasgow; Wallace E. Herrell, M.D., 190 North Upper St., Lexington; David O. Booher, M. D., Virgie; and M. B. Dillon, M.D., Paris.

New Eye-Ear Officers Elected

The Louisville Eye and Ear Society recently announced the election of new officers for the 1953-54 year. Joseph J. Wynn, M.D., was elected president, Wynatt Dean, M.D., vice-president and R. Glen Boles, M.D., secretary-treasurer. Approximately 30 physicians, specializing in eye, ear, nose and throat, from Louisville and surrounding territory are members of the society which meets bi-monthly.

A revised edition of the "Official Rules of the Committee on Cosmetics of the AMA," which contains requirements for presentation of products and rules governing the acceptance of products by the Committee, has recently been published, reports the American Medical Association. Copies of the booklet are available on request from the AMA, which may be obtained through the KSMA Headquarters Office.

It is anticipated that more than 500 surgeons from Canada and the United States will attend a Sectional Meeting of the American College of Surgeons on May 17 to 19, 1954, to be held in London, England, at the invitation of leading surgeons of England, many of whom are Honorary Fellows of the American College of Surgeons, reports H. Prather Saunders, M.D., associate director of the College.

County Society Reports

JEFFERSON

The June meeting of the Jefferson County Medical Society was held Monday evening, June 15, 1953, at the Kentucky Hotel. There were 96 members present for dinner and about 15 additional people for the meeting.

The meeting was called to order at 8 p.m. by the President, Arthur T. Hurst, M.D. The minutes of the previous meeting were read and approved.

Mr. Jean Clos, Executive Secretary, announced the establishment of permanent headquarters for the Jefferson County Medical Society at 981 S. Third Street. Some of the advantages of the new headquarters were mentioned, including air-conditioning, free parking facilities, and room for expansion. Detailed information will be sent to members by the Executive Committee.

The following new members were elected: T. E. Andes, M.D., Richard G. Burman, M.D., Herbert T. Ransdell, Jr., M.D., Arthur L. Juers, M.D., (transfer and reinstatement), Arthur Lee Goodman, M.D., (associate).

Miss Ann Cornett, who has joined the Executive Secretary's staff, was introduced.

Dr. Austin Bloch read a Resolution that the Jefferson County Medical Society go on record as opposing in principle the actions which deprive physicians of the free and equal use of hospital facilities for any reason other than negligence, incompetence or impropriety, and made a motion that the Resolution be accepted, which was seconded and carried.

The Secretary read a letter from John A. Roper, Jr., M.D., offering to make house calls, see office patients, or take week-end or night calls for doctors on vacation, during the summer months.

The Secretary read a letter directed to George W. Pedigo, M.D., from John Guy Miller, Field Secretary, Kentucky State Medical Association, asking the Society to assist in the purchase of one set of AMA Bureau of Health Education's electrical transcription series entitled, "Health Heroes" for permanent possession and use by the Louisville public schools, at \$25.00 for the set of twelve transcriptions.

Dr. Pedigo made a motion that the Jefferson County Medical Society donate the \$25.00 for the purchase of these twelve transcriptions. The motion was seconded and carried.

At the scientific program, "Recent Concepts

Concerning the Treatment of Carcinoma of the Breast" was the topic of a panel discussion conducted by Edward Maxwell, M.D., moderator, Condict Moore, M.D., Robert C. Tate, M.D., and Jesshill Love, M.D. Panel members answered and discussed written questions submitted from the floor.

John S. Llewellyn, M.D., Secretary

JOHNSON

The first meeting of the fall season of the Johnson County Medical Society was held September 29, 1953, at the Hotel Herald, Paintsville. The following physicians were present: P. B. Hall, Lon C. Hall, Robert A. Hall, Morris M. Hall, John Turner, A. D. Slone, and Dr. Keith, formerly with the Inez Health Department. The following dentists attended: A. F. Williams, G. P. Salyers, G. V. Stafford, J. Rapiere and Howard Meade. We had as guests our wives and those of the dentists. Mr. Vern Horne of the County Board of Education was also our guest. Morris Hall, M.D., was welcomed back from service with the U. S. Army.

There was a discussion concerning the examinations of the school children of the city and county again this year. Mr. Horne suggested that the Board of Education pay us for our work instead of the usual \$2.00 per pupil as in the past. Mr. Horne thought that we might have a larger group to reach in this manner. In the past we have charged \$2.00 per pupil, collecting only from those able to pay and doing the rest gratis, as it is not our purpose to let any child miss this examination because of lack of funds. It was felt that this would lead to a wrong impression and would degrade the examinations and lead a tendency toward socialized medicine. We would rather do these examinations for much less and keep the free enterprise in this matter. It was decided to lower the charge to \$1.00 so as to reach more children and still dispel the "something for nothing" idea which seems to be a current thought in many people's minds. A committee of three, Doctors Robert Hall, Morris Hall, and Howard Meade, was appointed to work out the schedule for these mass examinations. In the past we have examined over 1000 children each year.

Our next meeting will be held the last Tuesday in October, the 27th.

We have two new members of the society



Various factors during pregnancy (intestinal displacement, atony, inactivity) make it virtually impossible for most women to go through the gestation period without constipation.

CONSTIPATION IN PREGNANCY: *Satisfactorily controlled with Metamucil®*

Metamucil, with its physiologic principles of "smoothage" and "normo-hydration," is well tolerated for pregnancy constipation. This bland vegetable colloid may be used throughout the entire nine-month period without fear of forming a "habit" and without irritation to the mucosa.

Greenhill¹ suggests that Metamucil be given every other night. He also recommends that Metamucil be given in conjunction with a proper diet,

during the lying-in period of the puerperium.

Metamucil is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

1. Greenhill, J. P.: Principles and Practice of Obstetrics, ed. 10, Philadelphia, W. B. Saunders Company, 1951, pp. 103-104; 311; 332.

SEARLE Research in the Service of Medicine

this year: W. N. Keith, M.D., and Harry T. Overby, M.D. In this county all dentists are associate members of the Kentucky State Medical Association and we have Dr. Howard Meade as the new dentist in our society. We welcome these men and hope that they will find it a pleasure to be located in Johnson County and with the fine fellowship which exists here among our doctors of medicine and also with our dentists.

Augustus D. Slone, M.D., Secretary

SCOTT

The Scott County Medical Society met on Thursday, October 1, 1953, at the John Graves Ford Memorial Hospital in Georgetown. The following members were present: Doctors F. W. Wilt, C. R. Lewis, W. S. Allphin, A. F. Smith, H. G. Wells, and H. V. Johnson.

Mr. Ed McConnell, Mr. Ray Ingram, and Mr. Wash, of Louisville were guests of the society. Minutes of the previous meeting were read and approved. After dinner, the meeting was turned over to Mr. McConnell, Mr. Ingram, and Mr. Wash, representatives of the Blue Cross and Blue Shield Insurance Companies. These gentlemen explained in detail how their plan is operated both for the hospital and the physicians.

H. V. Johnson, M.D., Secretary

UNION

The regular meeting of the Union County Medico-Dental Society was held Tuesday, September 15, 1953, at 7:30 p.m. at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M.D., president, and the minutes of the last meeting were read and approved.

A motion was made by Dr. Carr and sec-

onded by Dr. Humphrey that the society go on record as passing a resolution on the loss of A. W. Andreasen, M.D., as Director of Health and Secretary-Treasurer of the medical society. The motion was unanimously passed.

Resolution: Whereas, A. W. Andreasen, M.D., contributed immeasurably to the life of this community, and that his efforts and leadership in his widely diversified sphere of activity as exemplified by his service is appreciated. This society expresses its gratitude. The loss of Dr. Andreasen to the community and the society is deeply regretted. Best wishes for success to Dr. Andreasen in his new field of activity is the desire of the society.

Dr. Andreasen moved that C. P. Bartley, M.D., be elected Secretary-Treasurer for the society. The motion was seconded by Dr. Welker, and the motion carried. Dr. Bartley will take over his duties October 1, 1953.

Dr. Humphrey, Chairman of the Diabetic Committee, reminded the society that November 15th was Diabetic Detection Week. He will send out information and literature on this matter. All physicians should cooperate with the committee during this detection week.

R. J. Dancey, M.D., director of medical services of District One Tb. Hospital in Madisonville, was guest speaker. He spoke on the importance of the sputum test, and showed several X-ray films to illustrate the fact that what would be concluded to be Tb. was proven otherwise. He said that X-ray alone is not a diagnostic criteria, without a positive sputum test the diagnosis of Tb. should not be made, as cancer and other conditions sometimes simulate Tb. on X-ray films.

Dr. Dancey stated that drugs should never be given in a suspected Tb. case until proved to be Tb. as the bacilli may be inhibited.

A. W. Andreasen, M.D., Secretary-Treasurer

It had to be good
to get where it is



THE COCA-COLA COMPANY



North Shore Health Resort

Winnetka, Illinois

*on the Shores of
Lake Michigan*

A completely equipped sanitarium for the care of
nervous and mental disorders, alcoholism and drug addiction
offering all forms of treatment, including electric shock.

SAMUEL LIEBMAN, M. S., M. D.

225 Sheridan Road

Medical Director

Phone Winnetka 6-0211

FULLY APPROVED BY THE AMERICAN COLLEGE OF SURGEONS

BRONCHIAL OBSTRUCTION: ITS SIGNIFICANCE IN PULMONARY DISEASE

(Continued from page 496)

tion to their presence. Bronchogenic carcinoma also may be found as a small thickening of the bronchial wall with no bronchial obstruction and no pulmonary findings physically or by chest X-rays. Such tumors metastasize extensively and death results from the widespread metastases rather than from the primary tumor. Only the postmortem examination reveals the apparently insignificant endobronchial lesion. Other bronchogenic carcinomas are collar-button in shape, with a partially obstructing endobronchial lesion and a large extrabronchial component which may so compress the bronchus proximal to the intrabronchial tumor that tissue for biopsy cannot be reached.

Thus, bronchogenic carcinoma produces no symptoms or findings that may be considered as characteristic of this serious disease. However, it is generally suspected when partial or complete bronchial obstruction is found, or when signs and symptoms of bronchial obstruction recur after having responded temporarily to antibiotic therapy.

Summary

Bronchial obstruction is one of the fundamental causes of broncho-pulmonary disease. It may be produced by intra-bronchial lesions, such as foreign bodies, purulent secretions or membranous casts; endobronchial lesions such as thickened bronchial mucosa, or bronchogenic tumors; or extra-bronchial lesions such as mediastinal tumors, inflammatory hilar nodes or cardiovascular anomalies. The effect will be dependent upon the degree of obstruction, apparent as a wheeze, obstructive emphysema or atelectasis with resultant severe emphysema, bronchopulmonary suppuration, pneumonitis, or bronchiectasis which are often avoidable by early recognition and removal of the obstructing agent.

News Items

J. Duffy Hancock, M.D., Louisville, KSMA President, represented the association at the annual dinner of the Kentucky State Association of Registered Nurses, November 15, 1953.

Wyatt Norvell, M.D., Vice-President of the KSMA from Eastern Kentucky, represented the association at a testimonial dinner given in honor of **C. B. Van Arsdall, Sr., M. D.**, in Harrodsburg. The occasion commemorated the latter's fiftieth year of service in professional, civic, and religious activities.

George David McClure, M.D., Louisville, recently announced the reopening of an office in Louisville for the practice of Ophthalmology, after returning from military service with the medical staff of the United States Army. Dr. McClure is a diplomate of the American Board of Ophthalmology. He was graduated from the University of Louisville School of Medicine in 1947 and interned at St. Joseph's Infirmary, Louisville.

J. Duffy Hancock, M.D., Louisville, KSMA President, represented the KSMA at the annual banquet of the Indiana State Medical Association, October 21, at French Lick, Indiana.

"OUR WIVES AS OUR HELPERS"

(Continued from page 503)

medical profession commends its auxiliary for its willingness and eagerness to serve the profession's objectives. We should be reminded, however, that cooperation is a two way street. The Auxiliary and its members have demonstrated through their previous accomplishments that they are reservoirs of strength and help. To benefit most from them, however, each medical organization, state, national and local, must assume fully its special obligation to the ladies by giving them a full opportunity to do the job of which they are capable.

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 51

DECEMBER, 1953

NO. 12

Evolution of Transurethral Prostatic Surgery

DOUGLAS E. SCOTT, M.D., M.S. (Urol.)

Lexington

Twice in the past four years our Society has seen fit to confer the honor of this office upon a urologist. Had Dr. William Miner four years ago not fulfilled your trust so splendidly there is serious doubt that you would have allowed me here today. His excellent presentation of the history of the development of urology has been a convenient source of reference for me on many occasions. When you ask a person working in a narrow specialty to speak to you who collectively have wide and varied interests, I know you accept a calculated risk. You are in clear danger of becoming subjected to a discussion of that *less and less* about which the specialist is supposed to know *more and more*. If during the next half hour I sometimes seem to magnify small detail it will be to develop a theme in which I hope I can hold your interest. It is the evolution of an operation.

In the field of urology there are new and exciting things happening. One is our expanding ability to apply hormone control to prostatic malignancy. No one yet knows to what new wonders this may lead.

Another is the development of techniques for the use of radioactive isotopes in prostatic and bladder malignancies. The current activity in these directions practically precludes any review or interpretation of the situation at the moment by anyone not actually working in these experimental fields.

With these thoughts in mind of things I should not do it occurred to me that there is something entirely new in our

lifetime in urology which has been here long enough to permit evaluation.

Transurethral Approach

The removal of substantial amounts of tissue through the urethra from the prostate gland became a practical possibility in 1931. In the two decades since then the transurethral surgical approach to the prostate and related structures has become an established and important one. In this country now, the majority of prostatic and bladder neck obstructions are operated upon in this way.

I really believe that this operation was kept alive in its infancy through the persistence of a misconception. The misconception was that because this was something done through natural channels it should therefore be simpler of accomplishment than an open surgical approach.

Another part of the misconception was that with benign hyperplasia of the prostate all that would be required would be to carve out something that looked like a fairly good hole through the obstructing prostate tissue. That part of the misconception did not help preserve the procedure. Rather it served to slow its development. Yet this idea persisted much longer than the other and in places is still alive. Even today some of the best of internists in presenting a poor surgical risk to the urologist will suggest that "just enough tissue be taken out to get him by." That that can not be done successfully will probably turn out to be the main theme of this discussion.

I was stimulated by the prospect of my part in this program to look back over sixteen hundred transurethral prostatic re-

sections which I did beginning in 1933 and carrying into the early months of the present year. If you will permit me the premise that I am an average sort of urologist then the series may serve to show not only how I have been doing (which was principally what I wanted to know) but how a fundamentally sound operation has evolved from a very uncertain beginning.

I am not going to give you all of the statistics that were extracted from the records of these sixteen hundred operations. They would bore you. Some of them bore me. But wherein statistics illustrate what has taken place generally in the difficult evolution of a new procedure, I believe you will be interested.

The Resectoscope

The instrument which gained and kept the widest popularity for this approach to the prostate had its basic principles assembled into a unit by Maximillian Stern, a New York urologist, in 1926. He called it a resectoscope. Essentially they were the principles of the cystoscope, which were an electric light in the bladder, a telescopic system of lenses giving just the proper amount of magnification for clear observation, and a provision for filling the bladder with water. Added to these was the idea of a notch in the side wall of the cystoscope through which tissue could be pressed into the lumen of the instrument. This tissue could then be sheared off by a high frequency current activated in a semicircular loop of wire made to travel across the opening under constant observation. Another type of high frequency current delivered to this same wire loop would coagulate, but not cut tissue and so could be used to seal bleeding points. It was not until 1931, however, that generators were developed which would produce current of sufficient power to cut tissue under water and do it well. The magnificent instruments in use today are only mechanical refinements of the original concept. That such complicated machines function so smoothly is a triumph of the ingenuity of many urologists and of the positive genius of some instrument makers.

I think the instrument makers like to fan the aura of mystery which surrounds the production of their beautiful machines with the story told of Reinhold Wappler. They say he was the only man who knew exactly how many lenses and prisms went

into the telescope that is used with this instrument, that he never would tell anyone and that since his death no one has been very sure. The perfection of vision through present day instruments, of course, makes the story purely apocryphal.

Two decades ago then, the urologist had in his hand an instrument of great complexity, but there were no teachers. We did not know what could be done with it. It is apparent now that we did not know what should be done with it and most assuredly at first we didn't know how to do it.

While we were acquiring a set of reflexes coordinated to the instrument we set about with the idea of establishing what looked like an adequate opening through the obstructing prostate tissue.

Most of the time results were remarkably good and patients pleased at the ease of their recovery from what had seemed a formidable situation. Yet there were a disquieting number that did not do well or with whom there were difficulties at time of operation.

Complications

The open surgical approaches to the prostate had been beset by two complications—infection and hemorrhage. It took very little experience to show that these hazards, while diminished, were by no means eliminated and that to them were added a whole new group of problems peculiar to the urethral approach.

If the delicate structure of the urethra was traumatized, urethral stricture frequently resulted. If the incisions made with the instrument were carried beyond the confines of the prostatic capsule, extravasation of irrigating fluid into the tissues around the bladder created a new kind of surgical emergency. If the periprostatic venous plexus was opened, profuse bleeding was apt to occur which attempts at electrical control only intensified. Donald Creevy of the University of Minnesota demonstrated that sometimes enormous quantities of water could enter the venous system through these channels with resulting intravascular hemolysis. On very rare occasions explosions occurred within the bladder. Mortality rates at first were not for all of us at the remarkably low figure of some of the early reports. What had been heralded as a very simple procedure was proving a most difficult one to master. That the

problems have been met and largely overcome is attested by the existing prominence of the method after twenty years have passed.

Review of Series

In the series under consideration, which is spread over this twenty year period, it is interesting to note that the proportion of patients who were in their eighties is fifty per cent higher in the last third of the series than in the first third. The general average age of patients has increased from below seventy to above seventy. Since there is no reason to think that prostatic disease is changing its habits, this becomes just one more evidence of the increasing age of the population. It probably represents the change from pre- to post- antibiotic times.

Of the fifty-six hospital deaths which occurred, six were directly related to peculiarities of the type of operation. They were deaths which would not have resulted from any other type of operation. Such were extravasation of irrigating medium, intravascular hemolysis with resulting nephrosis, certain special causes of hemorrhage or infection.

In the last 600 cases, however, it can be recorded that no deaths resulted from this special group of causes.

Seven hospital deaths occurred in the first one hundred procedures. That didn't seem very good. Through 1000 transurethral resections the postoperative hospital death rate for me improved very little—five per cent, six per cent, four per cent as the series progressed. Then things began to improve. In the last 600 cases of the series there were only seven postoperative hospital deaths. As mentioned above, none of these was due to hazards innate in the operative procedure. This hospital death rate of a shade over one per cent would seem the irreducible minimum for any major procedure done on patients in this age group. It should be remembered that eighty-eight per cent of them were over sixty years of age. This same hospital death rate held for those over eighty years of age when considered by themselves.

This improvement does not represent selection of cases. Thirty-three of this six hundred were senile individuals representing almost every type of cerebrovascular disease. Thirty-four had frank coronary accidents in their past or recent

history or had manifested some type of cardiac insufficiency before operation.

Of all the fifty-six deaths, pulmonary embolism accounted for twelve and was the greatest single factor. There were twelve other cases of pulmonary embolism which survived. Twenty-four cases are too few from which to draw conclusions about causes or judge the comparative value of the various preventive or treatment measures adopted. However, one gets impressions and there is some basis for argument in the circumstances of these twenty-four cases that more than a few of the emboli originated not in the leg veins but in those of the periprostatic plexus.

Heart disease was present or recorded in the history of seventy-eight patients. Coronary disease, accounting for eight deaths was the second highest cause of death. In four of these eight who died of coronary disease the condition was not suspected on history taking or general physical examination.

To the urologist it must be of considerable importance that three fatal coronary attacks were initiated by chills resulting from urinary sepsis. Many aged hearts just cannot respond to the sudden work demand of a chill. Fortunately today we are well equipped with means of prophylaxis against infection and chills are of less frequent occurrence.

There were four deaths from cerebral thrombosis and two from cerebral hemorrhage. There were two coronary attacks and one cerebral thrombosis which occurred on the operating table. We assumed that they resulted from blood pressure fluctuations associated with the type of anesthesia employed.

Modern anesthesia techniques have, I believe, been a large single factor in making surgery safe for elderly people. I have a great and growing confidence in the ability of the present day anesthesiologist to prevent blood pressure fluctuations with spinal anesthesia. After giving my own anesthetics, either spinal or sacral block, for 1100 of these cases I was thankful for the arrival of the anesthesiologist in my community. I could at last give undistracted attention to a procedure which from its nature required it.

Advances in the field of internal medicine have also brought increased safety to surgery in the aged. Particularly this has been in the better understanding of fluid and electrolyte balance. Much can

be done now in the management of coronary and cerebral arterial disease not possible when this series began.

Four patients died because lower ureters were obstructed by extension of prostatic malignancy. The modern miracle of hormone therapy in prostatic cancer will often make operations under such conditions justifiable. The hormone effect of releasing ureters so involved has been seen on a number of occasions.

The remaining deaths were due to extraneous causes not relevant to this discussion. They were unrelated to the operative procedure or to the age group of the patients.

The past decade has been the period of most obvious reduction in morbidity in association with transurethral surgery. This, of course, has been the period of the development of the antibiotics and it goes without saying that that contribution has been great.

The Evolution of Prostatectomy

The fundamental thing in the reduction of morbidity, however, has been the realization that all of the hyperplastic tissue has to be removed. The final result must be an enucleation of precisely the same degree as any open operation for prostatic hyperplasia. If hyperplastic tissue is left behind one or more of three things is likely to occur—persistent intractable infection, recurrent hemorrhage, early recurrence of obstruction. It can be understood that with the removal of hyperplastic tissue from the prostate, the prostatic capsule relieved of internal pressure contracts. If then some hyperplastic tissue has been left behind it is again crowded centrally into the urethral canal where it is once more an obstructive factor, or being congested causes hemorrhage, or devitalized becomes a persistent source of infection inaccessible to any type of therapy.

So evolution of the present day operation of transurethral prostatectomy was, you might say, compulsory. Now, technically, the elaboration of transurethral resection into transurethral prostatectomy was a matter of having an orderly procedure and of learning to recognize the difference in appearance between the cut surface of glandular tissue and the exposed surface of prostatic capsule as it was laid bare in all directions.

The progress toward more complete re-

section is reflected in the diminishing incidence of recurrence in this series.

Among the first three hundred resections sixteen per cent of benign hyperplasia are known to have recurred; among the second three hundred nine per cent; among the third three hundred four per cent. All of these operations were done long enough ago to be well beyond the average time of recurrence of the earliest group which was five and one-half years. If we project this diminishing incidence of recurrence onto the resections done in subsequent years, then recurrence of obstruction should by now be a negligible factor.

Surgical Accidents

The surgical accidents peculiar to the procedure have been referred to. Intravascular hemolysis from the direct flow of irrigating water into open venous channels is preventable. Isotonic solutions of substances harmless in the circulation are being used instead of water. They must, of course, be solutions that are nonconductors of electricity. Solutions of glucose, glycine, mannitol, urea and other substances have thus been used.

Extravasation of irrigating fluid into tissues outside the bladder occurred six times in these 1600 resections. Two which occurred early in the series went unrecognized and resulted in death. While avoidance of this mishap comes largely from experience the best would be bold indeed to say that it will never occur with him again. The symptoms, however, are almost always immediately recognizable and then prompt drainage of the perivesical space can be carried out.

The phenomenon of explosion within the bladder must be a very uncommon occurrence. If one is to explain this strange mishap it must be assumed that some hydrolysis of water results from the action of the electric current. It happened twice in this series. The first one made a noise that could be heard across the room. No harm resulted except that it scared the wits out of me. The next was heard in the hall of the operating room suite. There was a coincident momentary expansion of the patient's lower abdomen and he was aware of pain. Cystoscopically two or three deep linear rents were visible in the bladder dome and anteriorly near the bladder base. The bladder had literally blown up like a paper bag. Recovery occurred without further incident after

immediate drainage of the perivesical space and insertion of a suprapubic tube. This kind of accident is, I feel sure, now an avoidable one.

No one has greater respect than the urologist for the delicacy of structure of the urethral canal. In spite of this, twenty-four persistent strictures of the urethra appeared to have been induced in this series. Strictures result from inflammation or injury or both. Their incidence can be brought very low by determined attention to certain principles in the use of instruments within this canal. The size of instruments used must be kept within the caliber of the urethra. Provision for adequate drainage of urethral secretions around catheters which lie in the urethra is another small detail that becomes important in prevention of a complication. The incidence of persistent stricture improved fifty per cent in the last six hundred resections, occurring in less than one per cent. One thing which I am sure has contributed to this improvement is the performance of urethral meatotomy in twenty per cent of these later cases.

Urinary Incontinence

Incontinence of urine, because it is a social disaster, is the least desirable of the complications of any prostatic surgery. Continence of urine is dependent on the intact function of the external urethral sphincter situated just distal to the apex of the prostate gland. This muscle can be invaded by extending prostatic malignancy. It can be weakened by central nervous system disease or degeneration. It can be temporarily overpowered by a hypertrophied detrusor muscle. Damage to this sphincter by the operative procedure, however, should be expected to be at a minimum where an operation is carried out under close, magnified vision.

In this series of resections partial incontinence occurred thirteen times where there was no other factor to explain it but the operation. By partial, I mean incontinence under stress or posturination dribbling. Two of these appear to have been permanent. The other eleven recovered fully in three weeks to five months time.

I have intentionally avoided a discussion of the pathology encountered because it tends to lead away from my theme. A number of pathological oddities were sufficiently curious to deserve separate re-

ports. In this presentation, however, the following should be recorded. Fifteen per cent of the cases encountered were prostatic malignancies. For the malignant prostate this can, of course, be only a palliative procedure. Palliation is still all that is possible for the great majority of prostatic malignancies by the time we see them. In such situations this operation is probably the only one which should be undertaken on the gland.

Malignancies

Since malignancy is a continuing growth process recurrences of bladder outlet obstruction requiring repeated resections might be anticipated. Such recurrences developed in eighteen per cent of the malignant cases in this series. This recurrence ratio did not diminish with operative experience as the series progressed as was the case with benign hyperplasia.

Somewhat similar observations were made in regard to inflammatory contraction of the bladder neck. Fourteen per cent of the cases operated upon were in this category. The condition is due in practically all cases to long standing inflammation in the prostate gland. In this group were some of the most severe obstructions. This high percentage of inflammatory obstructions emphasizes that chronic prostatitis is a disease which has its serious aspects.

Here too is a continuing disease process not brought to an end by the operative removal of the obstruction. So again a high incidence of recurrence can be anticipated and this is the case. In consequence, urologists generally are reluctant to resect median bars and contracted bladder necks where symptoms are only irritative in type and not definitely obstructive.

Summary

So I may summarize.

Here is an operation new in our time made possible by many inventions. It is entirely a child of the machine age. Its technique was not easily acquired, a fact directly contrary to early expectations. With the technique acquired it still remains the most difficult of the four surgical approaches to the prostate.

It has its own specific hazards. These are at last well understood. It seems evident that they will not appear as significant risks in the future.

To be a satisfactory operation for benign hyperplasia it must always consist of a complete enucleation of the hyperplastic tissue just as with any other operation for this disorder. To do less than this on the false assumption that it is safer for the patient is to invite disaster in the form of a variety of complications.

It is not an operation which can be done on the excessively large prostate. Each operator must know his own limitations in respect to this procedure. There is here, I think, an inherent danger. Inherent perhaps in the surgeon rather than in the operation. He may rather too easily be tempted to proceed transurethraly with a gland too large for his abilities. Urologists now have come, I believe generally, to appreciate this. They no longer go out to beat the record at the risk of having to nurse the complications of an incomplete resection.

The average amount of tissue removed in the last 500 benign prostates in this series was 29 grams. While there were several over 100 grams in which the result was all that could be desired, there were some that would have been better operated on in almost any other way than the one chosen.

From the patient's standpoint there are considerations which may be all impor-

tant. Mortality figures are as low as they can get for any major procedure on patients in this age group. Pain relieving drugs are not ordinarily required postoperatively. Postoperative fever reactions are not the rule, even slight ones. Such ease of recovery is not merely an attractive feature. It may be the all important one that makes any recovery possible with the poor risk patient.

The probationary period is over. Urologists now in training have available the accumulated experience of those who have gone before. They can rapidly learn much that it took the combined experience of many thousands of cases to discover. It is a sound procedure as now carried out and seems applicable to the majority of all types of bladder neck obstruction.

If this is a story of difficulties and problems in the evolution of a splendid operation, it is one which should be heard. When we emphasize quite truthfully to our patients the simplicity of the procedure in relation to the magnitude of their trouble it is well we understand what goes into making the operation simple for the patient. Actually from the beginning the good results so far outweighed the bad that there was never any question of the survival and importance of the procedure.

The Legislative Program and Activities of the American Medical Association

C. JOSEPH STETLER

Secretary, Committee on Legislation, American Medical Association

Chicago, Illinois

It is a pleasure and a privilege for me to visit Kentucky and to discuss with you the legislative program and activities of the American Medical Association.

At the outset, I should like to refer briefly to the groups within the Association which are charged with responsibilities in this field and the mechanics of their operations. After that, I would like to talk about some of the significant medical issues which will be before Congress when it returns to Washington in January, and finally but equally important, how you can help in making our legislative efforts successful.

The Bureau of Legal Medicine and Legislation of the American Medical Association is responsible for following State legislation, and taking whatever action is necessary whereas the Washington Office and the Committee on Legislation handle national issues. Since I am going to confine my remarks to national legislation, I will elaborate only on the activities and composition of the last two.

The Washington Office

Since 1944, the American Medical Association has found it necessary to maintain an office in Washington—not for lobbying purposes, as that term is understood, but as a listening post and as a means for

distributing information about medicine and the medical profession. Dr. Frank Wilson, who is the Director of the office, is assisted by a staff of 17 persons including two other physicians. It is their duty to study the Congressional Record and to report to the profession the bills which are introduced having primary medical implications. This is done through the preparation and distribution of a Washington Newsletter. This letter also outlines action on medical legislation in congressional committees and on the floor of the House of Representatives or the Senate, and activities of the Executive Departments of interest to physicians.

Other duties of that office include the preparation of a Washington news section for the Journal of the American Medical Association, the making of appointments for our witnesses before congressional committees and the contacting of individual congressmen to advise them of the views of the Association on individual bills. They have a volume and a variety of inquiries from the public, the profession and the Congress which they handle on a daily basis. The Washington Office is doing a difficult job in a very capable and dignified way. Their methods are completely ethical and honest and, as demonstrated by the record, extremely successful.

The Legislative Committee

Now a word about the Legislative Committee—This Committee is composed of 10 physicians who operate under the Chairmanship of Dr. Blasingame of Wharton, Texas. The other members are situated throughout the United States and are responsible for relaying information to and stimulating legislative activity in certain specific states. For example, your own Dr. Clark Bailey who is a member of the Committee is responsible for Kansas, Kentucky, Missouri and Tennessee.

The Legislative Committee analyzes all medical bills of any significance reported by the Washington Office and recommends a policy position to the Board of Trustees. I can assure you that these recommendations are not made hastily. The bills are studied thoroughly by all of the members of the Committee with the advice and assistance of the interested councils and committees within the Association and of outside allied health associations. In addition, we have established liaison with organizations such as the

American Bar Association, the United States Chamber of Commerce, the American Farm Bureau Federation and other groups of that type, which are always willing to advise us on matters concerning which they have particular or professional knowledge.

It is also the responsibility of our Committee to prepare and present or assist in the presentation of testimony to congressional committees.

The Committee also cooperates with the Washington Office in the conduct of regional legislative conferences which I know some of you attended last fall. As a staff function, we send out a "Legislative Review" to key personnel in the states, keeping them up-to-date on medical legislation and the policy adopted by the Association.

I mentioned earlier something about key men—these are the chairmen or members of state legislative committees, the executive secretaries of the state medical societies, or some other individual designated to act as a "minute man" in case of a legislative emergency. Frequently we receive news of an impending committee meeting or possible floor action on an important bill at the last minute. It is not too unusual for me to be calling Dr. Bailey on a Friday night, telling him of some activity to take place on Monday morning in Congress. He must in turn alert his key men, who then see that information concerning our position gets to your representatives in Congress from the proper sources. Lately we have been able to get explanatory information around in advance, however, sometimes we must rely on last minute telephone conversations.

Volume of Work

Let me give you an idea of the number of bills considered each Congress. In the first session of the 83rd Congress our Committee studied and recommended policy on 179 bills. We are having another meeting in Chicago Saturday and there are 80 more bills on the agenda. This means that in the first session of this Congress we will have considered 259 bills. In addition, we have presented oral or written statements on 13 of these measures. I believe this has been the busiest legislative session in the history of the AMA. Some thought that with a change of administration we would be able to take a breather. However, it begins to look like the old saying is true—"I can

take care of my enemies, but dear Lord deliver me from my friends."

Now let us look at what is going on and what is in prospect in Washington. With Congress not in session it is a pretty dead place. However, the large number of bills left over from the first session indicates clearly that the House and Senate are in for a busy time next year. In the first session 9,900 bills were introduced and only about 5% were disposed of (288 Public bills enacted; 227 Private bills). A poll of members of Congress indicates that top priority has been assigned to settling our difficulties in Korea, tax reductions, economy in government and to stabilizing farm prices. Most of these issues have no medical implication per se, however, these and others have undertones which cannot be ignored by the profession.

Of the hundreds of medical bills which I mentioned earlier, most are of the hardy perennial type which we have become accustomed to seeing each year, others are entirely new—some good—most bad. Let me first just mention what I consider to be the 10 basic medical issues due to come before Congress this next year and then discuss as many of them in detail as time will permit.

- (1) Activities of International Labor Organization. Proposed Amendment to the Constitution introduced by Senator Bricker, et al.
- (2) Medical benefits for veterans with non-service-connected disabilities.
- (3) Universal Military Training.
- (4) Extension of Social Security coverage to include physicians.
- (5) Federal aid to private health insurance plans.
- (6) Tax deferments for premiums to private pension funds.
- (7) Dependent Medical care. "Doctor Draft Law."
- (8) "Free" hospitalization for Social Security beneficiaries.
- (9) Federal aid to medical education.
- (10) Permanent and total disability insurance benefits.

International Labor Organization— Bricker Resolution

Inasmuch as it would be possible to make a separate speech on each of these subjects, I am going to have to be extremely brief. By way of background let me say that the ILO is an organization which is a subsidiary of the United Nations

which has delegates from over 65 countries. Its original function was to study and make recommendations with respect to employment conditions from an international approach. The medical profession, although aware of the ILO's existence, was not completely alerted to its dangerous potential until June 1952 when that organization adopted a convention known as the "Minimum Standards of Social Security." This convention advocated permanent and total disability and cash sickness insurance, plus a number of other medical benefits which added up to socialized medicine.

By way of explanation, you should know that the conventions of this and other similar organizations have the effect of treaties and if ratified by two-thirds of the members of the Senate present, they become the supreme law of the land. Thus faced with the possibility of having socialized medicine foisted upon the people against their expressed wishes, the medical profession became active. Fortunately, at about the same time, other large groups became alarmed at the possibility of domestic control through treaties and Executive agreements. As a result, Senator Bricker and 63 other senators introduced a resolution (S. J. Res. 1, 83rd Congress) proposing an amendment to the Constitution which would provide for legislative control of Executive agreements and would also require the passage of implementing legislation by the House and the Senate before the provisions of a treaty could control domestic issues. This resolution, with some amendments, has been reported favorably by the Senate Judiciary Committee over the objections of the Administration. It now awaits action by the Senate and then by the House of Representatives. We have been and still are very much in favor of this resolution and intend to wage a vigorous campaign this next session of Congress to effect its passage.

Medical Care for Veterans with Non- Service-Connected Disabilities

You will recall that in New York last June the House of Delegates of the American Medical Association adopted a new policy with respect to veterans medical care. After a lengthy study of the present law and VA program, it was recommended that an attempt be made to effect legislation which would return to the individual, the State and local area, the

responsibility for providing medical care for veterans with non-service-connected disabilities.

At the present time Veterans Administration provides free medical care and hospitalization for all veterans with service-connected disabilities and for veterans with non-service-connected disabilities who state, under oath, that they are unable to pay for their own care. A review of the facts in this regard indicates clearly that not only was the present situation not contemplated or intended when the care of this latter group of veterans was initiated 30 years ago, but that the already critical situation will reach impossible proportions by 1975.

A calm and rational consideration of this problem will dictate that some changes in the present law are imperative. The people of this country, through their representatives in Congress, have been extremely generous and grateful for the services performed by the men in uniform. This has been demonstrated by the establishment of the most elaborate system of veterans benefits devised by any country. It is important, however, that in our effort to award patriotism we do not take advantage of the remainder of the population. Have we, in our generosity, created two classes of citizens? Have we lost sight of the fact that service to one's country is one of the rights of citizenship rather than obligation?

For the fiscal year 1953, Congress appropriated \$555,000,000 for the maintenance and operation of the veterans medical care program. Inasmuch as approximately 85% of all persons discharged from Veterans Administration hospitals in the last year were suffering from non-service-connected illness, it is proper to assume that approximately that same percentage of the annual appropriation is dedicated to non-service-connected care. With the possible tripling of the bed capacity by the Veterans Administration by 1975, it is easy to see how this annual appropriation will grow within the next few years. In light of the commitments which have been made by the Administration concerning governmental economies, this would appear to be one of the logical places to begin reductions.

On June 13, 1953, Dr. Walter B. Martin, the President-Elect of the American Medical Association, appeared before a subcommittee of the Veterans Affairs Committee of the House of Representatives,

which is engaged in a study of this problem. It is apparent from the attitude of the members of this Committee that they have been hearing only from organized veterans groups in this regard. It is high time that the members of this Committee are forced to consider both sides of the question and to concentrate on the following:

- (1) Just what is the basis for providing free medical care to veterans with non-service-connected disabilities?
- (2) What is the present system doing to the civilian medical teaching program?
- (3) Is it creating an artificial shortage of health personnel?
- (4) Is it lowering the standards of health care for the public?
- (5) Is it contributing to an overlapping of federal medical facilities?
- (6) Is the huge expense and resulting tax burden justified?
- (7) Do the veterans of this country really want this type of handout?

Success in attaining congressional action in this regard will not be simple; however, the medical profession and the public must be brought to realize that a continuation of the current trends in veterans medical care will result in the worst type of federal medical intervention.

Universal Military Training

On July 23 the President appointed two members and a new Chairman to the national Security Training Commission. At the same time he directed the Commission to restudy and report to him and the Congress the details of a Universal Military Training Program.

Last year representatives of the American Medical Association appeared twice before the National Security Training Commission and also testified before the Armed Services Committee of the Senate and the House of Representatives. The initial report of the Commission, submitted to the Congress, covered certain of the Association's suggestions, however, others were not discussed. One of the recommendations of the Commission was that "graduates" of the proposed Universal Military Training Program should not be entitled to veterans benefits in general. This was a good recommendation and we agreed with it. However, it is questionable whether it would stand up in years to come under a congressional on-

slaught of veterans organized groups. The addition of this large group to the already huge veteran population would greatly aggravate the veterans medical care problem which I have just discussed.

The distinct possibility that a Universal Military Training Program may be initiated points up even more clearly the need for a revision of the laws relating to veterans medical care.

In our appearances last year before congressional committees there was a tendency to discuss many of our proposals in conjunction with legislation pending at that time designed to revise the Armed Forces Reserve Program. Although the Congress did not adopt Universal Military Training, the Armed Forces Reserve Act of 1952 was enacted on July 9. Inasmuch as that Act does not cover the medical aspects of universal military training as recommended by our witnesses, it is apparent that if they are to be effected they must be included in legislation which the new Commission may suggest for congressional consideration. For that reason on August 23, the American Medical Association again suggested that the following five cardinal medical elements be given serious consideration:

- (1) The Continuation of Pre-Professional and Professional Education for Qualified Students;
- (2) The Performance of Pre-Induction, Induction and Periodic Reserve Physical Examinations;
- (3) Extent of Medical Services to be Provided for Members of the National Security Training Corps:
 - (a) Corrective Treatment and Rehabilitation, and
 - (b) Medical Care During Period of Basic Training;
- (4) Eligibility of Members of National Security Training Corps and Reserve Components for Veterans Medical Benefits; and
- (5) Source and Selection of Medical and Allied Professional Personnel

Extension of Social Security Coverage to Include Physicians

A score of bills have been introduced to effect the recently made recommendations of the President and the Secretary of Health, Education and Welfare, that coverage under Title II of the Social Security Act be extended to self-employed persons including physicians. The Chairman of

the House Ways and Means Committee (Mr. Reed of New York) who has charge of this issue has introduced a bill at the request of the President. He has reserved comment, however, as to whether he will actively work for the passage of the measure.

In June of 1949, the House of Delegates of the American Medical Association adopted a resolution opposing the compulsory inclusion of physicians under Social Security. This matter will be discussed again by the Board of Trustees and the House of Delegates in December. This is one issue that the Administration is certain to press for and one which will keep the Legislative Committee and our Washington Office busy.

I am sorry that time will not permit a detailed discussion of all of the issues I mentioned earlier because they are all extremely important and are sure to receive congressional consideration this next year. However, I would like to use the few minutes remaining to outline your part in this program and how you can help insure its success.

The Strength of the AMA

I know you hear a lot about the potency of the "lobby" of the American Medical Association and probably figure that there is some mysterious formula which makes our strength in Washington possible. In actuality it is a very simple proposition. As I stated earlier, our tactics are completely ethical and above board. The great bulk of the time of our Washington staff is spent in supplying medical data to members of Congress and answering their requests for information. In this way our relationship with members of Congress has been established on firm ground. We do not attempt to sell them "a bill of goods" and they know it. Thus, when we approach them to explain our position on a bill with medical implications we get their attention and in most cases their help. But as pleasant and as effective as this relationship is—don't ever mistake it for our real strength in Washington. That real strength is *you*. Yes, it is the personal contact—the letter—the telegram or the phone call from the doctor or his wife or his patient that brings results.

Members of Congress understand one language—votes. If we are effective, it is because the doctors in Louisville and Harlan, and all of the other cities and towns

in Kentucky and elsewhere have assumed a responsibility which is theirs as citizens and as members of the medical profession. Individual physicians must be impressed with the fact that they should register and vote. They must learn the facts about important issues, including those medical. They must communicate with their representatives in Congress, and keep track of their voting records.

There is no doubt that the National Education Campaign, which was instituted when socialized medical legislation was a definite threat, increased our effectiveness and power in Washington tremendously. With that added power, however, comes added responsibilities. Since our advice is taken, we must be doubly sure

that our position is sound. If it is not—if it is based on selfish interests—and if we cannot convince the public and the Congress of the validity of our stand then we have no right to prevail.

Therefore, I would suggest that each of you become thoroughly acquainted with the details of the major medical issues of the day and be willing and ready to assist Dr. Bailey or whatever other member of the profession calls upon you for help in getting the facts and our position before your representatives in Congress. Remember, although the "Wagner-Murray-Dingell" type of socialized medicine is a dead duck, we are in danger of arriving at the same destination by circuitous routes.

The Medical Treatment of Hypertension

*GEORGE W. PEDIGO, JR., M.D., FACP

Louisville

The modern treatment of essential or idiopathic hypertension is a very important problem to all physicians. Arterial hypertension is said to occur in about 5%¹ of the adult population before the age of 40, and in about 20% of the population over the age of 40. When presented with a patient with hypertension it is important to establish whether the hypertension is idiopathic or due to such known etiological causes as pheochromocytoma, coarctation of the aorta, nephritis, pyelonephritis, prostatic hypertrophy, adrenal tumors, pituitary basophilism, toxemia of pregnancy, polycystic disease of the kidneys, etc.

The Physical Baseline

Once the diagnosis of idiopathic hypertension is established, it is important for the physician to determine the objective physical baseline of that patient. This baseline is obtained by carefully examining the eyegrounds for the degree of hypertensive retinopathy, evaluating the function of the kidneys, checking the heart size by a 6-foot chest X-ray, and an electrocardiogram to determine the status of the myocardium. It is well to remember

that 50%² of hypertensive patients die with cardiac complications, less than one-third from cerebral vascular accidents, and only about 10% from renal insufficiency. The baseline examination and subsequent follow-up examinations should primarily be an evaluation of the cardiac, cerebral vascular, and renal status.

It is of the utmost importance in the management of the hypertensive patients, in the presymptomatic stage, not to make the patient over-conscious of his blood pressure. Prevention of anxiety is important and the physician must not unwittingly frighten the patient. In the presymptomatic patient, the most important single therapeutic approach is to allay apprehension and fear. The doctor should carefully explain that hypertension, in many individuals, may not produce complications for many years. The average duration of life exceeded 16 years after hypertension was first diagnosed, in observations by Perera³. Survival for even more than 40 years has been well documented in patients with hypertension.

Too frequent checks of the blood pressure by the physician should be discouraged, and it should be emphasized that rises and falls in the blood pressure from one visit to the next, are not significant. The important questions for the doctor to

Presented before Sectional Meeting of Kentucky Academy of General Practice, Mammoth Cave, Kentucky, July 16, 1953.

*Clinical Assistant Professor of Medicine, University of Louisville School of Medicine.

answer as he follows the progress of the hypertensive patient are:

What is the elevated blood pressure doing to the patient?

Is there evidence of progression of the hypertensive retinopathy?

Does the heart or kidney function show evidence of progressive impairment?

General Measures

In the presymptomatic stage the hypertensive patient should be allowed to lead a relatively normal life. Excesses, in general, should be avoided. These include long working hours, fatigue, worry, tension, over use of coffee, tea and tobacco. Too strenuous sports and physical exertion should be discouraged. Periodic vacations and frequent divergence from the grind and tension of every day work are important. It should be remembered that overtreatment and imposing restrictions which make the pattern of life of the hypertensive patient unnatural, will only produce more anxiety and defeat the purpose of therapy.

In tense individuals small daily doses of a sedative, such as phenobarbital, chloral hydrate or similar preparations, will prove to be invaluable and frequently are the only medication required in the presymptomatic, or early symptomatic patient.

Diet

The diet for the hypertensive patient, in the presymptomatic stage, should not be altered unless the patient is obese. If he is obese, a program to gradually reduce his weight to normal should be instituted. The use of a low salt diet is impractical and of dubious benefit in the presymptomatic stage of hypertension. With the appearance of symptoms and signs, especially those related to cardiac or renal dysfunction, a low salt diet will be highly beneficial. The rice diet of Kempner, which contains only 0.2 grams salt, has been reported to be of much benefit in the severely hypertensive patient. This diet, however, except in unusual circumstances, imposes on the patient so many restrictions that few patients will follow it, as recommended. It has been said⁴ that the monotony and, in many cases, the questionable if not adverse physiological effects of this diet, preclude its general acceptance.

Drug Therapy

Various drugs have entertained momentary popularity throughout the years in the management of hypertension, but it must be realized that the ideal drug has not yet been found. The recent discovery of drugs, which are much more effective in maintaining a lowered blood pressure, constitute a major advance and their current availability makes the problem of using them properly, of immediate practical importance.

Potassium thiocyanate⁵ and sodium nitroprusside will produce significant lowering of the blood pressure in about one third of hypertensive patients. Potassium thiocyanate should not be used unless periodic cyanate blood level determinations can be done. The blood level should be about 3 to 6 mg.% and the blood level should never be allowed to go as high as 15 mg.%. Toxic manifestations from the cyanates consist of nausea, vomiting, weakness, skin rash, hallucinations and mental confusion. Hypothyroidism may also occur. It is generally agreed by most physicians that the greatest usefulness for the cyanates is in the relief of the severe headaches and vertigo of the hypertensive patient under the age of 50. The thiocyanates do not produce any specific reversal of the vascular change which has produced the hypertension and are not, at the present time, considered an effective drug in combatting the hypertension.

Veratrum

Veratrum viride⁶ is a vasodepressor drug which produces arteriolar dilatation and bradycardia. Satisfactory clinical response has been reported in 20 to 50% of the patients with hypertension treated with this drug. A number of biologically standardized preparations of Veratrum are available on the market. "Vertavis" is the whole powdered Veratrum Viride. The dosage of this preparation is 30-60 craw units daily. "Veratrite" contains Vertavis plus phenobarbital and sodium nitrate. "Veriloid" contains the ester alkaloids of Veratrum Viride. Its effective dose is 8-20 mg. daily.

"Veriloid" is also available for both intramuscular and intravenous use during a hypertensive crisis.

"Protoveratrine" is a single ester alkaloid of Veratrum alba. It is available for oral use in tablets, each of which contains 200 or 500 micrograms, or in solution contain-

ing 100 micrograms per c.c. for intravenous use. The total oral daily dose is 400-1500 micrograms. For intravenous administration, 1 c.c. or 100 micrograms is diluted to 10 c.c. with physiological saline solution. The injection is given slowly with frequent blood pressure determinations. The usual dose is 50 to 150 micrograms.

A number of side effects, such as increased salivation, dizziness, weakness, numbness, nausea and vomiting, and even circulatory collapse, may occur with high dosage of Veratrum products.

Veratrum preparations⁷ are potent hypotensive drugs but the difference between non-hypertensive and excessive hypotensive dose is small, and the range in dose from nontoxic to toxic symptoms is even smaller. Extreme care in regulating the dosage, and knowledge of the patient that side effects may occur, should all be considered. It is not the ideal drug to combat hypertension but does have a place. Taylor⁸ states that unfortunately the nausea producing and therapeutic doses are so close that it is only in the exceptional patient that significant long lasting reduction in blood pressure is achieved.

Rauwolfia

*Rauwolfia serpentina*⁹, a crude root used in India for many years, is a mild hypotensive and bradycrotic agent which has a sedative effect that is symptomatically helpful for some patients with hypertension. This hypotensive response is slow in developing and may not reach maximum intensity for weeks or months. Combining¹⁰ *Rauwolfia serpentina* with Veriloid has been reported to be more effective than either drug used alone.

"Apresoline"

"Apresoline" is one of the newer hypotensive drugs whose action appears to be chiefly on the midbrain¹¹ preventing excess outflow of sympathetic vasopressor impulses, with a resulting relaxation of cerebral vascular tone. This action will reduce blood pressure and yet allows an increase¹² in renal blood flow. Other physiological effects consist of tachycardia¹³ with an increased cardiac output.

The benefit derived from "Apresoline" is dependent on individualization of dosage. Too large an initial dosage schedule, or too small a dose over too short a period

of time, will result in either reaction or failure to reduce adequately the pressure. In the treatment of the ambulatory patient it is well to start with small doses, such as 10 mg. after each meal and at bedtime. This dosage can be gradually increased, depending on the clinical response and lack of side effects, until an ultimate average effective dosage of 300-600 mg. is reached. It must be remembered that in individual cases as little as 100 mg. daily or as much as 800 mg. daily will be required. In addition, it may take six to eight weeks of graduating therapy to establish the dosage for any single individual. Tolerance to "Apresoline" may occur but if the drug is discontinued for a week, most patients will again respond when it is restarted.

"Apresoline" is more effective if combined with a low sodium diet or if used in patients who have had a previous sympathectomy¹². Many of the side effects of "Apresoline" may be prevented or minimized by the simultaneous use of antihistaminic drugs, sedation, or "Dramamine." It is reported⁸ that 60% of patients with hypertension will respond, at least somewhat favorably, to "Apresoline," and that most patients should be given a clinical trial if their hypertensive disease is such that a potent antihypertensive drug should be used. Approximately 70% of the patients treated may have some side effects, but in only 10% will these side effects be intolerable. According to Taylor et al¹⁴, who reported on 97 patients treated with "Apresoline," one fourth of the patients responded by showing a decrease of the diastolic pressure to normal, one third of the patients had a decrease in the diastolic pressure to less than 110 m.m. Hg. There was an over all response of more than 50% of the patients treated with "Apresoline."

"Apresoline" may also be given parenterally. The usual dose is 20 to 40 milligrams, either intravenously or intramuscularly. The parenteral use should be restricted to hospital patients and the blood pressure should be checked frequently after its administration. The average maximal fall in blood pressure occurs in about twenty minutes and the fall may be rather precipitous. It is recommended that the parenteral administration be restricted to emergencies and a shift to oral administration be made as soon as possible.

Hexamethonium

Hexamethonium is a new and potent hypotensive agent which can be given both orally and parenterally. This drug acts pharmacologically to raise the threshold of the sympathetic and parasympathetic ganglia to acetyl-choline. Caution should be stressed as to its use, since too rapid a reduction of long standing hypertension may diminish the blood flow through vital organs with resultant angina, coronary occlusion, uremia, or cerebral thrombosis.

It is recommended that this drug be used initially only on hospital cases, so that each case can be individualized and closely followed. Orally, hexamethonium is poorly absorbed and its action is not as dependable or as predictable as when used parenterally¹⁵. The oral use of hexamethonium has not found universal favor.

There is a marked variation in the individual response to parenterally administered hexamethonium. Orthostatic hypotension is much more marked than is the fall with the patient in the supine position. Debilitated patients and those with more severe hypertension will frequently get the most fall in blood pressure. The initial injection characteristically produces the most severe of the hypotensive responses, making it necessary to start with a very small test dose. With each injection, the patient should be propped up slightly in bed and his blood pressure taken at frequent intervals, to get the individual response to the drug. The maximal effect¹⁶ from the intravenous administration is reached in from 15 to 30 minutes, with a gradual subsidence of this maximal effect in one to two hours. Ineffective levels are reached in 4 to 6 hours. The patient should remain prone from one to two hours after each parenteral dose, to avoid the severe orthostatic hypotension which may occur. The initial dose may be given either intravenously or subcutaneously, in a dosage of 1.25 to 5 mg. If it is given intravenously, the rate of injection should not be more rapid than 0.5 mg. to 1 mg. per minute. The subsequent dosage depends on the response to the initial dose. A graduating dosage is given at 8 to 12 hour intervals until an effective response is obtained. Eventually 35 to 100 mg. every 12 hours may be required. Tolerance to the drug may occur as treatment is continued. Close observation of the blood pressure

must be made with each dose, just as was advised with the initial dose.

Patients who are on a low sodium diet, or patients who have previously had a sympathectomy, will get a better hypotensive response to hexamethonium than will other hypertensive patients.

In the event of a precipitous drop in pressure after giving hexamethonium, the patient should be placed in Trendelenberg position, and if the pressure remains dangerously low, a prompt rise in pressure may be obtained by giving "Neosynephrin." If, for any reason, hexamethonium is discontinued, the withdrawal should be slow to prevent sudden return of higher blood pressure, which might precipitate a vascular accident. If the oral administration of hexamethonium is to be used, the initial dose is 125 mg. The subsequent dosage depends on the clinical response to the initial dose. To obtain clinical results, it will be necessary to increase gradually the dose until as much as 3 to 5 grams daily is given. This should be divided into an 8-hour schedule. When the total daily dose is over 3 gm. daily, frequent side effects may occur. Page⁸ has seen so much difficulty from the oral use of hexamethonium that his enthusiasm for its use is small. Moyer¹² et al, however, states that hexamethonium is superior to all other orally effective hypotensive drugs, and reports significant reduction of pressure, on a long term basis, in 60% of his cases, with normotensive level reached in 47% of the cases observed.

The side effects from the use of hexamethonium are due to the blocking of the sympathetic and parasympathetic ganglia. Dryness of the mouth, constipation, paralytic ileus, blurring of vision, urinary retention, nausea, vomiting, and diarrhea, may occur. The symptoms associated with postural hypotension are faintness, dizziness, weakness, and even syncope.

Combined Therapy

Schroeder¹⁷ states that the combination of hexamethonium and "Apresoline," giving the "Apresoline" orally midway between the injections of hexamethonium, will return the blood pressure to normal in practically all cases. Fries¹⁶ does not believe hexamethonium should be given more often than 8 to 12 hours. He gradually increases the parenteral dose of hexamethonium to a total of as much as 50

mg. in each dose. If the hypotensive response does not persist beyond 6 hours, Fries then gives "Apresoline" orally midway between injections, giving from 25 to 150 mg. of "Apresoline" in each dose, depending on the individual response of the patient.

Combined therapy with "Apresoline" and hexamethonium is effective because "Apresoline" stimulates the heart and increases cardiac output. Tachycardia also occurs. Hexamethonium decreases the cardiac output and if it is started before "Apresoline" is given, no tachycardia will occur. Better therapeutic results with less side effects are thus obtained. Moyer, after evaluating 54 hypertensive patients treated with "Apresoline" for three months, states that in 35% of the cases a significant reduction in the blood pressure occurred, but that after a one to two-year period, only 9% of these patient continued to obtain adequate blood pressure regulation. Hexamethonium combined with "Apresoline" in those patients who had failed to respond, resulted in a significant reduction in pressure in 75% of the cases.

The most effective medical management of the malignant hypertensive patient at the present time appears to be the use of hexamethonium parenterally, combined with oral "Apresoline," a low sodium diet, and regulation of the emotional problems of the patient.

Summary

It is apparent that the outlook for the patient with malignant hypertension is considerably brighter than it was a few years ago. The physician has at his disposal a variety of therapeutic methods which will reverse and improve the clinical picture in at least 50% of the patients treated. The ultimate benefits from treatment with these drugs remain to be seen. More time is needed to determine if there is an increase in survival, and to determine the best dosage schedule. Treatment with many of these new drugs is still in the experimental stage. It must be remembered that these drugs are powerful agents and can be dangerous if not used intelligently. Their use should be reserved for malignant hypertension or severe hypertension with significant symptoms. They should not be given merely

because the blood pressure is elevated. If hexamethonium and "Apresoline" are to be used, it is desirable that the patient be hospitalized, if possible, until a reasonable, stable dosage is established. Close observation of each patient is imperative; each patient is an individual problem. Expertly handled, the drugs have given excellent results. But if less meticulous care is used, they are likely to do more harm than good. We may hope that drugs will be found which are more uniform in their activity and freer from side effects. The newer, powerful, hypotensive drugs are not suitable for promiscuous use.

BIBLIOGRAPHY

1. Wakerlin, G. E.: Pathogenesis and Treatment of Essential Hypertension. Medical Clinics of No. Am. Jan. 1952. pp 129-139.
2. Cecil & Loeb: Textbook of Medicine, 8th Ed. W. B. Saunders Co., Philadelphia and London. 1951 pp. 1071-1078.
3. Perera, G. A. and Atchley, D. W.: Hypertensive Vascular Disease. Nelson's Loose Leaf Medicine. Thomas and Sons, New York, 1949. Vol. 4, pp 233-263.
4. Loofbourow, D. G.; Callahan, D., and Palmer, A. S.: The Rice Diet in Ambulatory Patients with Essential Hypertension. A Two Year Study of 105 Patients. N.E.J.M. 244:577. April 19, 1951.
5. Hines, Edgar A.: Proceedings of the Staff Meetings of the Mayo Clinic. Potassium Thiocyanates and Sodium Nitro-Prusside. Vol. 27, No. 24. Nov. 19, 1952. pp 485-488.
6. Merritt, Wallace A.: Proceedings of Staff Meeting of the Mayo Clinic. The Treatment of Essential Hypertension with Veratrum. Vol. 27, No. 24. Nov. 19, 1952. pp. 481-485.
7. Wilkins, Robert W.: Modern Concepts of Cardiovascular Disease. Vol. XX, No. 2. Feb. 1951.
8. Page, Irvin H.: Management of Moderately Severe Arterial Hypertension. Circulation. Vol. 7, No. 1, Jan. 1953. pp. 116-126.
9. Chakravortz, N. K.; Rai Chaudhuri, M. N., and Chaudhuri, R. N.: Rauwolfia Serpentina in Essential Hypertension. Indian M. Gazette 86:348 (Aug.) 1951.
10. Wilkins, R. W.: Combination of Drugs in the Treatment of Essential Hypertension. Mississippi Doctor. 30:359 (Apr.) 1953.
11. Yonkman, F. F.: Neurogenic Hypertension. Chemical Approaches to Its Amelioration. J. Mich. St. M. Soc. 50:160-167. Feb. 1951.
12. Schroeder, H. A.: Effects of Apresoline in Neurogenic Hypertension. Circulation 5:28. 1952.
13. Moyer, John H.: Hydralazine Hydrochloride. Pharmacological Observations and Clinical Results in the Therapy of Hypertension. Archives Int. Med. Vol. 91, No. 4. April, 1953. pp. 419-440.
14. Taylor, R. D.; Duston, Harriet P.; Corcoran, A. C.; and Page, Irvin H.: Evaluation of Apresoline in the Treatment of Hypertensive Disease. Archives of Int. Med. Vol. 90, No. 6. pp. 745-750.
15. Sokolow, Maurice, and Schottstaedt, Mary F.: Management of Malignant Hypertension. Ann. Int. Med. Vol. 38, No. 4; April 1953. pp. 647-665.
16. Fries, E. D.; Finnerty, F. A., Jr.; Schneffer, H. W.; and Johnson, A. L.: The Treatment of Hypertension with Hexamethonium. Circulation 5:20-27. 1952.
17. Schroeder, H. A.: The Control of Arterial Hypertension. Proceedings of the American Heart Association, Cleveland. April, 1952.
18. Moyer, J. H.; Snyder, H. B.; Johnson, I.; Mill, L. C.; and Miller, S. I.: American Journal of Medical Science 225:319. April 1953.
19. Editorial, The Newer Antihypertensive Drugs. Annals Int. Med. Vol. 38, No. 12. Jan. 1953. pp. 142-146.

Changing Pattern in Obstetric Practice

H. CLOSE HESSELTINE, M.D.*

Chicago, Illinois

It is a well-established fact that when one fails to learn or ceases to advance one is likely left behind. The history of obstetrics in the last few decades demonstrates well the great change and progress that has occurred. By reviewing the past and evaluating the present we find some index of the future trends of this branch of medicine. Obstetrics is concerned with the physiologic process of reproduction. In most instances the process proceeds normally, but a sufficiently large percentage of patients develop abnormalities, complications or diseases which take the situation out of the normal, thereby converting it to the pathologic state. In some instances the condition is present prior to the pregnancy. In these instances, the pregnancy is the complication of the disease (i.e. pregnancy occurring in a patient with rheumatic heart disease or diabetes). The alternate type of complication is the disease developing after conception has occurred (i.e. toxemias of pregnancy, puerperal sepsis, hemorrhage or pneumonia). The complication of habitual abortion or repeated abortion is a problem that results in some instances because of defective spermatozoa—a husband's responsibility. It is assumed generally that most spontaneous abortions are the result of the development of an abnormal product of conception. Thus, either partner may unknowingly contribute to this loss of pregnancy.

The changing pattern of obstetric practice has been gradual. More rapid progress has taken place within the last 20 to 30 years. The last decade has witnessed the application of this advance. These changing patterns have resulted in progressively increased safety to the mother, to the unborn and the newborn.

These changing patterns have been gradual but multiple. For instance, analgesia, anesthesia, better technics, better comprehension of complication and more intelligent management of complications as heart disease, diabetes, pulmonary tuberculosis, pyelitis, anemia, varicosities, and constipation illustrate the point. Early recognition of complications of appendi-

citis and gall bladder disease has eliminated more critical complications.

The reduction in the fetal loss and the increase in the fetal salvage has been a credit to the entire profession. As you well know, twenty to thirty years ago in the United States, the mean average maternal mortality rate was roughly 65 for 10,000 live births. Today in better obstetric services and deliveries the rate may be reduced to less than 1 per 1000 births. Services have had 3000 to almost 5000 consecutive deliveries without the loss of a single mother. A review of the last nine years of the maternal mortality of the Chicago Lying-In Hospital reveals that there were seven deaths due to non-obstetric causes and only six to obstetric (Table 1). Puerperal sepsis used to be the principal cause of maternal deaths. The introduction of sulfonamides helped combat successfully this plague. The advent of antibiotics witnessed the further reduction of fatalities from this condition almost to zero in the better maternities. Puerperal infections still occur but prompt and proper treatment account for the result.

Indeed, twenty years ago, puerperal sepsis accounted for 35% to 40% of all puerperal deaths. Today it is one of the very infrequent causes of death. Two decades ago at the Chicago Lying-In Hospital, it

TABLE 1

MATERNAL MORTALITY CHICAGO LYING-IN HOSPITAL 1944-1953 (9 yrs.)

TOTAL DELIVERED:	34,250
MATERNAL DEATHS:	13
PER CENT	.0038
OBSTETRIC	
Embolism	2
Postpartum Hemorrhage	2
Toxemia	2
NON-OBSTETRIC	
*Embolism	1
Sclerosis	1
Biliary Cirrhosis	1
Rheumatic Heart Disease	3
Intracranial Hemorrhage	1
(aneurysm)	

*Undelivered

Read before the Annual Meeting of the Kentucky State Medical Association, Louisville, September 22-24, 1953.

*From the Department of Obstetrics and Gynecology, The University of Chicago and The Chicago Lying-In Hospital.

was not uncommon to have 15 to 18 maternal deaths per year and at least a third or more of these were due to sepsis. By good fortune, alertness, rigid technics and a rigid therapeutic program, we have not had a puerperal sepsis death in our institution since 1940. But, sooner or later we will have one due to a resistant organism, over confidence or an atypical clinical cause. In the United States the deaths from heart disease and thrombosis are now becoming more eminent merely by the reduction of the deaths from the formerly principal causes. The end of our opportunity for improvement is still not in view.

It is now the common practice for most obstetric patients to consult their doctor early in the pregnancy. The physician can evaluate the patient's general physical health and institute any necessary correctional measures. These tests include a chest microfilm or chest X-ray picture, a blood test for hemoglobin and a serologic reaction, an urinalysis, and a blood pressure reading. A routine history and physical examination are included. The patient receives her initial prenatal instructions. Arrangements for hospital reservation are made. Where there are facilities, hospital deliveries are almost routine for the United States. A woman is more likely to call her physician once she has made arrangements.

The fetal mortality at one time was equally proportionately high. It has been reduced in the last two decades. It is not uncommon now for the better maternity services to have from 96 to 97% of all deliveries (fetal weight of 1000 grams and above) to survive. This figure includes both the stillbirths as well as the neonatal deaths.

Fathers' Classes

It has now become popular for the husband to manifest interest in the wife's pregnancy and to help in the early care of the children. This makes a complete family unit. The husband is encouraged to be a part of the picture. By the husband understanding the course of pregnancy and the wife's physical limitations, he can more appropriately give moral support. His concern during the course of labor will be as intense but intelligent. Many institutions permit the husbands to spend considerable time with the wives during labor up to time of delivery. At the time of delivery, the physician and

nurses have enough responsibility caring for the mother and the baby without the increased hazards of an untrained person in the room. At the Chicago Lying-In, only doctors, nurses and medical students are permitted in the birthrooms. The husbands are introduced to the process of reproduction by means of special classes. These consist of four one-hour periods once a week for four weeks. A senior staff member gives the first talk. It is a simple but accurate description of conception, growth and development of the fetus, and maternal change. Labor is discussed. General principles are given on analgesia, anesthesia, lactation, early ambulation, and complications. Opportunity is given for these husbands to ask questions. Only husbands of wives registered to deliver at the hospital may attend. The second period, given by a nurse, is devoted to nursing care. The third period is for the dietitian and pediatricians. The fourth period is the one for the final questions and practice on the mannikin dolls. These "Fathers' Classes" have been remarkably popular across the country.

Mothers' Classes

"Mothers' Classes" are offered. These have a different function. Nurses give these. They cover general questions such as baby clothes and preparation of the home for the new member.

Ambulation

Progress has been made by the practice of early ambulation. Physicians and institutions vary somewhat on their attitudes on early ambulation. Some employ early ambulation for early discharge of patients. Others believe especially in early ambulation for physiologic advantages but keep the obstetric patients for a longer time. The uterus weighs normally about 2 to 3 ounces before pregnancy but at the end of full term gestation, it weighs approximately two pounds. The weight alone by effect of gravity could predispose to relaxation if the patient was to remain on her feet too long at too early a period. Early ambulation helps to retain muscle strength. It gives moral support to the patient. She becomes accustomed to moving about. By the time she is home she is much more able to care for herself and her baby. All normal term pregnancies are kept eight days after delivery at the Chicago Lying-In Hospital. Those with complications

receive individual consideration. Lactation does not begin until the third or fourth day and it takes another day or so before the baby has been properly adjusted to the breast feeding and has begun to gain. The advent of infection frequently does not appear until the 3rd or 4th postpartum day.

Natural Childbirth

The only place that real natural childbirth today prevails or exists is in the primitive state or areas without facilities. In modern communities various aids and assistances are given to the parturient. A better term would be "Modern Childbirth" or childbirth with confidence. If an episiotomy is performed, some type of anesthesia is required. This is no longer natural. An outlet forceps is not natural. The idea of the term "natural childbirth" is proper, normal and natural, except where proper interference will give a better result with less risk to the patient. Consequently, the goal is elimination of fear and instillation of confidence in the patient. She wants to cooperate and wants security for herself and baby.

Erythroblastosis

Erythroblastosis has been thoroughly established as a disease entity. It is known that 15% of all men and women have this Rh negative factor. The marriage ratio of Rh negative women and Rh positive men is equal to that of the cross section of the population. Thus, it is only one in 7 or 8 marriages of the Rh negative women that will have a like partner. Fortunately, in marriages of Rh negative women to Rh positive husbands, only about one in every 30 or more develop this sensitization. Even then not every succeeding pregnancy will be so involved. This disease presents a complex and difficult phenomena. There is no known preventive or effective therapy yet worked out. Various means of therapy have been tried for the fetus. Even the induction of premature labor has failed. Termination by cesarian section has been even less favorable than normal vaginal delivery. The fact that the baby does reasonably well until the time of delivery dictates that full term pregnancy should be planned. At the time of delivery, one should obtain a sample of blood from the cord for determination of the Rh factor of the newborn and for the determination of hemoglobin level. If the baby's hemoglobin is

below 14 gms. the baby should be watched very carefully. If the hemoglobin is 12 gm. or less, it should receive a blood transfusion. In our institution the exchange method is the method of choice. Potter, Wright and Cassels are in accord. If the baby has the clinical picture and finding of erythroblastosis, the exchange transfusion by catheter in the umbilical vein permits immediate replacement. A "cut-down" in a day or so may be necessary for another transfusion.

Rubella

The report of rubella from Australia indicated a severe and damaging virus. Observation in the United States would support the idea of a more virulent strain there than that which has been found here. The evidence to date indicates that if rubella is to produce fetal injury, it is most likely in the first trimester of pregnancy. However, as more and more mothers, who have had accurately diagnosed rubella carry the pregnancy to term, the lower the percentage of fetal damage. It seems now that the great majority of women who have rubella in the first trimester of pregnancy still can carry to term and also have a normal baby. Serious complications are disturbing and worrisome but their occurrence is becoming so infrequent that interruption of pregnancy will be done less and less. One must be sure of the diagnosis of the eruption. Secondly, one would have to know the stage of pregnancy.

Toxemia

In the complication of toxemia of pregnancy, both the cause and methods of treatment, are controversial. Because toxemia continues to occur and some fatalities do result, a few moments should be given to this condition. Data from the book "Toxemia of Pregnancy" by Dieckmann² (Table 2) does reveal improvement in the results. It will be noted that the comparison of periods ten years apart shows a moderate improvement. These data are pooled from seven leading maternity units (Boston Lying-In, New York Lying-In, Providence Lying-In, Brooklyn, Margaret Hague, Harper Hospital and Chicago Lying-in.) There has been a reduction in the incidence of both non-convulsive and convulsive toxemias. Equally gratifying is the fact that the mortality rate has also improved.

Dieckmann's data indicate that the per

TABLE 2

INCIDENCE OF ECLAMPSIA AND NON-CONCLUSIVE TOXEMIA FROM SEVEN MATERNITY SERVICES IN THE U. S.

(Boston Lying-In, New York Lying-In, Providence Lying-In, Brooklyn, Margaret Hague, Harper Hospital and Chicago Lying-In Hospital.)

For Years 1937-40 and 1947-50

	1937-40	1947-50
Deliveries	50,248	83,303
Non-Convulsive Toxemia %	6.8	5.7
Mortality %	0.51	0.08
Convulsive Toxemia %	0.25	0.11
Mortality %	10.6	7.3
Chicago Lying-In Alone		
Deliveries	8,224	11,929
Non-Convulsive Toxemia %	11.9	8.5
Mortality %	0.1	0.2
Convulsive Toxemia %	0.24	0.08
Mortality %	5.0	0.0

(After Dieckmann)

cent of induced labor in the toxemias has been reduced greatly. Yet the surgical termination rate has remained about the same. Indeed surgery is not the advised means of termination. It is reserved for those that are severe, acute or fulminating, not responding to treatment and not suitable for induction (rigid, long, uneffaced cervix, etc.).

Anesthesia

Preferences by the staff will be influenced by several factors in the choice of anesthesia. Most patients in our institution are delivered under ethylene anesthesia or saddle block. Caudal anesthesia has been eliminated entirely. Pudendal block and local infiltrations are rarely used. Open drop ether is almost never used. Cyclopropane is used in moderation. Hypnosis has not been introduced.

It is our conviction that individual consideration is the best clinical practice. Since deaths and serious complications can occur from these, there is not a perfectly safe and satisfactory anesthesia. Thus, one must be continuously on the alert. Individuals that have had neurological diseases, back, central or nervous system disease or injury should if possible avoid spinal anesthesia. Gas anesthetics are somewhat more hazardous if there is an upper respiratory infection or difficulty with the respiratory tract.

Forceps Deliveries

It has been said by some that routine forceps deliveries are desirable. Frequent use of outlet forceps or low forceps (when the head is visible through the introitus or on the perineum) may be desirable where there is opportunity and proper facilities for such procedures. It is known that the second stage of labor is perhaps the most hazardous to the unborn child but one should not rush just for the purpose of application of forceps. When satisfactory progress of the second stage ceases or there is strong evidence of fetal distress, then low or outlet forceps are justified. The day of mid forceps is practically over. High forceps application is no longer permitted in our institution. High forceps operation means that the head is not engaged and the dependent portion is above the spines of the ischia. The attempted use of forceps at the high level contributes almost always to damage, injury, insult to the mother and to the baby. When the pelvis is adequate for the baby, version extraction might be a better procedure. Yet version and extraction are less common. Most of these are done on the second twin.

Cesarian Section

The indications and uses of cesarian section operation are more clearly defined as clinical evaluation of the pelvis, the fetus and other factors have been established. It has been hinted by some that the availability of blood and partial protection offered by the administration of antibiotics would favor a higher cesarian section incidence. At our institution, there has been very little change in the rate. Admittedly, the indications have changed. No longer do we use cesarian section as the principal method of delivery because of heart disease, diabetes and other conditions. Instead we deliver by the abdominal route only for obstetrical indications. Cesarian sections may be performed after a longer trial labor nowadays but we still cannot eliminate all infections completely. We do not find any use for the extraperitoneal cesarian section in our patients. Cesarian section may be done as late as after 24 to 36 hours of inadequate labor provided the patient has had proper care, fluid balance and other appropriate treatment. Kobrak⁵ and his associates at Cook County Hospital demonstrated that women in labor for

three to four days and febrile could be delivered by cesarian section if necessary. However, they do not advocate this neglected management. Their series of over 100 cases without a maternal loss shows what can be done in this mid-century. Cesian section does not guarantee a living baby, it does put a scar in the uterus and exposes directly to the chance of peritonitis. Cesian section has its place but it still is not a procedure without its risk and without its danger. It should be done upon direct indication. Our positive indications are true dystocia between the head and the inlet of the pelvis or the bony pelvis proper, a previous cesarian section, complete placenta previa (the clinical os is completely covered by placenta) and fourthly, a pelvic tumor blocking the pelvis. An obstructing pelvic tumor is more often an ovarian cyst or a pedunculated fibromyoma but it may be a bowel or other type of tumor. There are relative indications for cesarian section such as a very large baby or postmaturity, an elderly primipara over 35 with poor mechanism of labor, toxemia of pregnancy in which there is inadequate response to therapy or the toxemia is progressing unfavorably, and fourthly, abruptio placenta of moderate or severe degree. Borderline indications include breech (these must be selected even more cautiously), malformation of the fetus which is incompatible with delivery and perhaps a few other conditions. It will be noted on the tables that the average cesarian section rate in our institution has been in the range of about 5.5% (Table 3). I do not believe that an index of a high cesarian section rate is necessarily an index of good obstetrics any more than is an unusually low one. It depends upon the nature of the clinical material. If the

patients are referred from a large area because of previous difficulty and previous section then a larger number will result. If on the other hand, it is a true cross-section of population, then there should be a more nearly equitable cesarian section rate.

Bacteriology

We have been able to show that organisms remain in the uterus for many days after delivery. It is an established fact that bacteria invade the uterus with the onset of labor and reach the greatest number between the second, and fourth day after delivery. Organisms may be found in the uterus until the placental site has healed, which is some few weeks later. We have been unable to sterilize the uterine cavity by antibiotic therapy. Work by Bustamante, Loth and myself⁴ (Tables 4 and 5) shows that certain antibiotics will alter the nature of the flora in the postpartum uterus. These changes may be detrimental for bacteria may balance each other more often than to favor synergism, as judged by clinical observations. These 5 antibiotics (penicillin, streptomycin, aureomycin, terramycin and chloromycetin) were only used in individual units and not in combinations. We hope ultimately to use combinations in our work. Cultures were taken on the fifth day. For therapy one must choose the proper antibiotic. For instance the colon organism—E Coli or B Aerogenes will grow in the presence of penicillin. Most pyelitis of pregnancy is caused by these organisms. Thus, penicillin has no influence upon these infections. "Gantrisin" and "Sulamyd" are preferable sulfonamides. Streptomycin if used may cause resistance to develop within 3 to 5 days if there is a stone or blocked urinary tract and infection is present.

TABLE 3

CESARIAN SECTION INCIDENCE
CHICAGO LYING-IN HOSPITAL

Year	Deliveries	C. S.	%
1931—38*	18,182	1000	5.5
46—47	4,070	197	4.8
47—48	4,082	197	4.8
48—49	3,932	183	4.7
49—50	3,834	199	5.2
50—51	3,859	197	5.1
51—52	3,823	201	5.3
52—53	3,646	196	5.1

*May 1931—March 1938 First 1000 C. S.

Febrile Index

D'Esopo¹ suggested that a graph could express simply, accurately and more directly febrile reaction in patients. He termed this "The Febrile Index." A few illustrations will show how easy it is to use such a means of communication. Bustamante³, working with me, modified D'Esopo's method. Instead of using 99° F. as the base line, we proposed using 99°⁰ F. or 37°⁰ C as the base. There are established as the upper limit of normal by physiologists. The principle is to add the tenths of degree of the highest point

of each day above the base line (Table 6, 7, 8 and 9). Then to remove the decimal point or multiply by 10. This gives the total as a whole number and is the index. In order to graph, one divides by the number of days for an average. This serves for the ordinate and the number of days as placed on the abscissa. For conversation, one merely gives the total index and days. After a little practice, this is very easily understood and is more descriptive than

a paragraph or many words of description of the temperature chart.

Conclusions

- 1. The per cent of hospital deliveries is increasing rapidly. At the present trend, it will be but a few years before most babies in the U. S. will be delivered in hospitals except for the matter of distances, possible economics or personal idiosyncracies.

TABLE 4

Frequency of AEROBIC ORGANISMS in Percent											
Streptococcus			Staphylococcus		Bacillus						
Cases	Alpha (non fec)		Beta	Albus	Aureus	A. Aerogenes	E. Coli	Paracolon	Diphtheroids	Lactobacilli	Proteus
		fecal									
Control	163	11.	1.84	64.5	6.1		15.9	0.6	50.3		1.8
Aureomycin	95	4.2	3.1	83.1	5.2		13.6	3.1	23.1	1.	15.7
		7.3									
Chloromycetin	102	7.8	10.7	85.2	5.8		5.8	0.9	24.5		5.8
		18.5									
Penicillin	103	1.9	9.7	65.	10.7	10.6	56.3	2.9	24.2		3.8
		11.6									
Streptomycin	101	6.9	8.9	76.2	7.9		7.9		24.7		0.9
		15.8									
Terramycin	101	4.9	8.9	92.	12.8		8.9	4.9	15.8	2.8	28.7
		11.8									

(after Hesselatine, Bustamante and Loth)

TABLE 5

Frequency of ANAEROBIC ORGANISMS in Percent							
Cases	Streptococcus (fac.)	Streptococcus	Micrococcus	Bacteroides	B. Melaninogenicum	B. Necrophorum	
Control	15.9	52.1		44.7		0.6	
Aureomycin	18.9	20.0		15.8			
Chloromycetin	21.5	37.2	0.9	21.5	0.9	0.9	
Penicillin	13.6	23.3		16.5			
Streptomycin	14.8	49.5		37.6		0.9	
Terramycin	10.9	21.7		12.8			

(After Hesselatine, Bustamante and Loth)

- The good maternal and fetal mortality is indeed very creditable to the medical profession. The medical, nursing and other hospital personnel will continue surely to improve these figures.
- Puerperal sepsis does occur but deaths from it can be reduced to a very low rate, less than that due to heart disease or embolism.
- The number of babies born this year in the United States may exceed 4,000,000 for the first time.
- Motherhood is so safe for the normal women today that there is absolutely no reason for fear or concern. The risk of motherhood is less than the hazards of every day life for most women.
- The cesarian section rate need not be increased and an increase might be unwise and unsound.
- Antibiotics have been most useful but they have their limitations. These drugs cannot replace good technic and good clinical judgment.

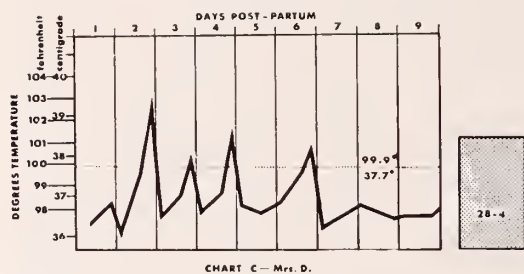


Table 6

Moderate febrile course with total of 2.8° C. Above 37.7° C. - A whole number of 28 - an average of 0.7° C. Elevation normal for four days.

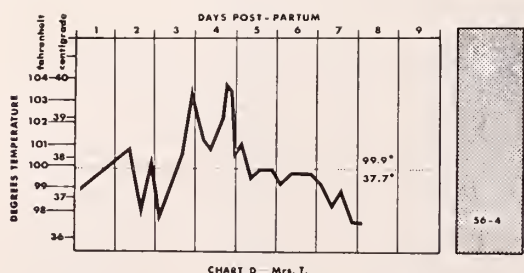


Table 7

A more acutely infected case - total of 5.6° C. Above normal for four days or an average of 1.4° C. above normal daily.

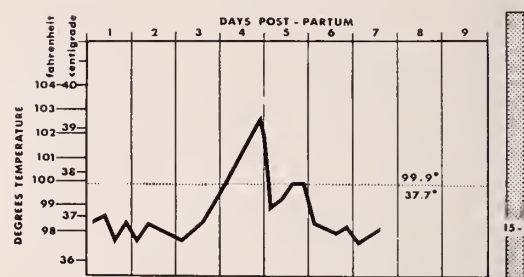


Table 8

A one day fever. Afebrile by the standards of the American Committee on Maternal Welfare, yet a febrile patient.

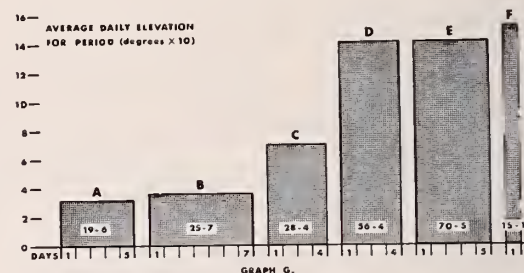


Table 9

Shows graph of average elevation above normal for the specified number of days. The number in the block is the total of tenths of degree elevated.

- A febrile index will aid in communicating facts on febrile patients.
- The free enterprise principle in the practice of medicine in the United States has made our profession the clinical and research leaders of the world. We have done more for the health and welfare of our people than any and all other groups. Their health and welfare is our responsibility. This responsibility we shall continue to assume so long as we are free to do so.
- Part of the proof of the point just above is the changing pattern in obstetric practice in the United States with the best results ever. Although you are proud of your role in these great strides, you must accept the challenge of the future for the care and health of our most valued assets—THE MOTHERS AND BABIES OF THIS COUNTRY.

BIBLIOGRAPHY

1. D'Esopo, D. A.—Trends in the Use of the Cesarean Section Operation—*American Journal of Obstetrics and Gynecology*—58:1120 Dec. 1949.
2. Diekmann, W. J.—*Toxemias of Pregnancy*, 2nd Edition, C. V. Mosby Co., St. Louis, P. 46, 1952.
3. Hesselstine, H. C., Bustamante, J.—*Febrile Index—Modification after D'Esopo*—*American Journal of Obstetrics and Gynecology*—In Press.

4. Hesselstine, H. C., Bustamante, J. and Loth, M.—*Influence of Antibiotic Therapy Upon the Intrauterine Puerperal Flora*—*American Journal of Obstetrics and Gynecology*—In Press.

5. Kobrak, A. J., Fields, C. and Turon, D. D.—*Prophylactic Chemo-antibiotic Therapy and Low Cervical Cesarean Section in Potential and Actual Infections*—*American Journal of Obstetrics and Gynecology*—60:1229, Dec. 1950.

Radioactive Iodine I-131 and the General Practitioner

ROBERT W. WILLMOTT, M.S.

and

THOMAS G. HOBBS, M.D., F.A.C.P.

Radioisotopes Laboratory, Good Samaritan Hospital

Lexington

Of all the Radioisotopes, I-131 has been the most widely used diagnostically¹. From a practical standpoint, I-131 appears as a clear, colorless liquid, a sodium iodide solution, of which the iodide is the only component made radioactive. This drug is manufactured in a neutron reactor such as the atomic pile at Oak Ridge, Tennessee. The iodine which is made radioactive is separated by chemical means from all other elements and then recombined with non-active sodium to form a solution. It is furnished in different degrees of concentration. Radioactive iodine has been made available to the general practitioner through institutional or private radioisotopes laboratories operated under authorization granted by the Atomic Energy Commission. Such laboratories involve a group of physicians, surgeons and a physicist to provide proper medical and health-safety control of this drug.

Radioiodine Uptake

How is the general practitioner to make use of this drug? It has been well established that the concentration of iodine in the normal thyroid, per gram of tissue, will run as high as two thousand to one per gram of tissue elsewhere in the body and in the hyperactive thyroid may even exceed ten thousand to one per gram of tissue². Under such conditions of concentration a small quantity of iodine introduced into the body will be picked up by the thyroid in proportion to its function³. Radioiodine allows almost a perfect method for making such a measurement since (A) the iodine in radioiodine acts chemically exactly as any other iodine atom, and

(B) the small gamma component of the radiation allows measurement of the iodine present in any organ of the body directly through bone, tissue, et cetera. Thus by a very simple method of introducing orally a minute amount of this material and measuring its concentration in the thyroid gland after an elapsed time of twenty-four hours, we are able to measure specifically the function of iodine collection by the gland. Such collection is felt to be directly proportional to the production of thyroxine³. Such a test is called a "Radioiodine uptake" and gives the practitioner a fundamental picture of the functionality, with little or no discomfort on the part of the patient.

Radioiodine Therapy

Radioiodine, when administered internally in large quantities, is a form of radiation therapy that produces a permanent and usually a non-complicated effect. Like all forms of radiation, its effect on tissue is destructive. The energies of the various types of radiation emitted by radioiodine have been treated elsewhere⁴. In general, however, we might state that the effective range in tissue of this destructive radiation is not over two millimeters². This component of the radiation is thus not similar to X-rays, since it is not greatly penetrating and is in fact simply a group of high speed electrons. Radioiodine does contain a small component of gamma rays which are similar to X-rays, but these are such a small percentage of the radiation present in treatment size doses as to be negligible.

The advantages of radioiodine used therapeutically in certain types of thyroid disorders can readily be seen. If the iodine

requirement of the gland is great, then a small quantity of radioiodine with a considerable amount of total radiation can be introduced and will effectively radiate only the thyroid gland. Since the amount of radiation is controllable, the thyroid gland and the thyroid gland alone can be radiated to almost any desirable level. The problem of removal of the iodine does not appear since every eight days half of the radioactive iodine atoms emit their particular radiation and become inert particles.

Interpretation of Test

When a patient is sent to a radioisotopes laboratory for a diagnostic I-131 uptake test, he is first questioned quite thoroughly regarding factors which may influence the test. These consist of a recent history of iodine medication of any type, iodine starvation, effect from thyrotropic hormone, increased effects from action of anti-thyroid drugs, and certain pituitary tumors. It appears that the only drawback to the test is the interference caused by previous administration, or application, of iodine or iodinated anti-thyroid drugs. Various individuals have different clearance rates for these drugs, but our laboratory has standardized on the following clearance rates: one week for simple iodine in less than thyroid therapeutic amounts, two weeks for thyroid therapeutic simple iodine, two weeks for iodinated propylthiouracil, and six months to a year for the iodinated dyes used in X-ray of renal functions or bronchial studies. After it has been established that the patient has no contraindications to the test, a fifty microcurie amount of radioactive iodine is carefully measured and administered orally to the patient. Approximately twenty-four hours later, the portion of this iodine picked up and retained by the thyroid gland is carefully measured and is expressed as a percentage of the total amount given. As is readily seen, such measurement can be done quite accurately with no discomfort to the patient and no danger whatsoever even in those patients with iodine allergies, since the total quantity of iodine employed in the test is exceedingly small, (of the order of one fifty-thousandths of a drop of Lugol's solution). Thus after a period of approximately fifteen minutes on two consecutive days, a result is reached which is expressed as a percentage lying between 0 and 100 per cent. Over a large series of

cases, our experience has shown the following classifications to apply:

1. 0—10%, myxedema
2. 10—20%, mild hypothyroid
3. 20—40% normal, with 33% mean normal
4. 40—60%, mild hyperthyroid
5. 60—100%, toxic, hyperthyroid

The accuracy of the reading on a patient is such that it may easily be maintained within a plus or minus 2% of the reading. We thus have a very simple means of determining accurately the thyroid activity of a patient, in whom contraindications do not exist, which is completely independent of the physical states of nervousness and anxiety. Since, however, the test does not differentiate between Graves' disease and a toxic, nodular goiter and does not differentiate between non-toxic, nodular goiter and malignant nodules, clinical knowledge must go hand in hand with this functionality determination.

Advantages of I-131 Therapy

The advantages of radioactive iodine used in treatment of certain of the thyroid disorders are many:⁵

1. No time loss on the part of the patient.
2. No hospitalization.
3. No anesthesia.
4. No cardiac embarrassment.
5. No deaths.
6. Low incidence of hypothyroidism.
7. Ease of administration with no discomfort.
8. No chronic tetany.
9. Cheapest form of treatment.
10. Low incidence of recurrence.
11. Recurrence easily and successfully treated.
12. Cosmetic effect.

Selection of Patients

One of the more important considerations in the successful use of radioactive iodine therapeutically, is in the selection of patients. Those that are now routinely treated by the I-131 method, where laboratory facilities are available, are the patients which show an uptake greater than 60%, without nodularity. Results with this class of patients have been excellent. It is now quite well accepted that the treatment of Graves' disease with radioactive iodine is the treatment of choice⁵. Toxic, nodular goiter is in general best treated surgically, since the threat of malignancy is always present in this type

of gland. However, in the poor surgical risk patients having toxic, nodular goiter, radioactive iodine will cause a permanent remission of toxic symptoms and often a shrinkage of the nodule. Simple goiter is not controlled with radioactive iodine. A few patients have received excellent results from treatment of low grade primary carcinoma of the thyroid with or without metastasis. Results indicate approximately 20% of the patients are helped through a retarding action of varying duration and one to two per cent have definitely been reported on the basis of a two year cure⁶. In cancer, radioiodine should be considered only as a "last resort" type of therapy with all other types of therapy preceding it. Patients under treatment with radioiodine are normally hospitalized only when their individual dose is to exceed 30 millicuries and are normally discharged when the level of radioiodine in their body drops to this value. This in some cases requires as long as seventy-two hours. One therapeutic use of radioactive iodine now viewed with considerable favor is the treatment of angina by suppression of normal thyroid activity⁷. Hypothyroidism is easily and permanently induced in the normal gland by the administration of a small dose of this drug. Dosage levels are as follows:

1. 5 - 15 millicuries, Graves' disease.
2. 10 - 25 millicuries, toxic adenoma, both in preoperative preparation and in inoperable cases.
3. 10 - 20 millicuries, suppression of normal thyroid to hypothyroid.
4. 50 - 250 millicuries, non-toxic inoperable thyroid adenomas.
5. 100 - 500 millicuries, cancer of the thyroid.

Post-Treatment Course

The number of treatments any one patient may require can be summed up by considering our laboratory statistics on Graves' disease, showing 80% of these patients are cured with one treatment, 18% have required a second dose to effect complete remission, and 2% a third dose. Side reactions from patients so treated with an individual dose under 25 millicuries have not been observed. With larger doses, a small percentage (3-5%) of the patients may exhibit a mild case of radiation sickness of short duration with or without a mild transient thyroiditis. No adverse ef-

fect on gonadal activity has been reported.

The initial clinical response to I-131 therapy usually requires two to three weeks. The maximum effect is obtained in two to four months. If persistent myxedema occurs, then small doses of thyroid medication are indicated to maintain metabolism at a normal state. Such symptoms as palpitation, dyspnea, and precordial pain insidiously subside by two months if treatment has been adequate. Objectively, the fine tremor, warm, moist hands, and the occasionally enlarged thyroid of Graves' disease, disappear after therapy. Two months after treatment the size of the gland is approximately 50% reduced, and after four months a complete remission is usually effected. If the patient is a thyro-cardiac, the cardiac failure and the auricular fibrillation usually disappear without other supportive measures as the treatment is primarily prophylaxis⁸. To decrease the possibility of thyroid crisis in extremely toxic patients, it is often desirable to administer anti-thyroid medication, i.e., "Itrumil" on the third day following treatment with radioactive iodine. This action probably decreases the effectiveness of the radioactive iodine therapy to a slight degree.

Between the second and third month it is desirable to submit the patient to another I-131 diagnostic test. At this time it can be determined accurately whether or not further treatment is required.

Results

What results can you expect from the use of this drug?*

Diagnostically—Definite, accurate measurement of thyroid activity is assured where contraindications do not exist. Our results show the iodine uptake test to be better than 95% accurate in determination of the thyroid state.

Graves' Disease—Better than 98% desirable results. No side reactions more severe than a mild, transient thyroiditis.

Toxic Adenoma—Greater than 98% desirable results in controlling toxicity preoperatively. In inoperable cases 35% of the nodules treated will shrink.

Non-Toxic Adenoma—Useful only when the patient is a poor surgical risk due to extraneous causes. Shrinkage of gland occurs in approximately 20% of cases with minimum side effects.

Carcinoma of the Thyroid—A small percentage of patients treated received out-

(Continued on page 561)

SPECIAL ARTICLES

THE DEDICATION OF THE PORTRAIT OF PHILLIP EARL BLACKERBY, M.D., D.Sc.

1881 - 1948

OSCAR O. MILLER, M.D.

Louisville



Oscar O. Miller, M.D., Louisville, unveils the portrait of the late Phillip Earl Blackerby, M.D., at the conclusion of the dedication service held during the 1953 KSMA Annual Meeting in Louisville, September 22-24.

President Graves, Ladies and Gentlemen,

We come today to dedicate this portrait of Dr. Phillip Earl Blackerby; and by that we mean to set it apart in the archives of this Association as a perpetual memorial of a good and devout man, who served his time and generation faithfully and well; who gave of his talents unstintedly and beyond the call of duty.

For thirty-three years he served devotedly the people of Kentucky and this Association in many capacities, culminating in 1943 as Health Commissioner of the

State of Kentucky and Secretary of this Association.

In this unique position, guardian of the public health of two million citizens, and intimately associated with the 1700 physicians of this society, he had a perfect appreciative knowledge of the duties and responsibilities of each to the people of Kentucky. He encouraged the profession to accept their commitments to public health measures and they in turn supported him in a common cause; better health.

He had a strong social consciousness and was well integrated with the social advances of his time. He saw the evils of state medicine and resisted the encroachment of Federal usurpation of medical care. He left documentary proof that he had a firm and comprehensive grasp of the health needs of the State and that he was cognizant of the fact that good health depends upon many external factors which are properly the function both of government and of the people themselves.

The October, 1948, Kentucky Medical Journal carries a brief record of the man's life and contributions; but no recorded history can inscribe his many acts of unremembered kindness, of which many of us were his beneficiaries.

Five years! Five years is a brief span, and yet how much is forgotten in five years. Perhaps there are some who never knew him, some recent graduate who never heard of him. How fleeting is time and place and recognition.

Perchance in the not too distant future, some neophyte, standing on the threshold of his professional career, full of hope and ambition, may visit our headquarters with his father or preceptor, and say, "Sir, whose portrait is this?" In response, his father may say, "That, my son, as you may well see, is the counterpart of a good man. He was the third Commissioner of Health of the State of Ken-

tucky, and Secretary of your Association. He had that finest of all preparation for his life work, that of a country doctor for eight years; that was the anvil on which his fine character was shaped, and those experiences broadened his vision, deepened his sympathies and forever after motivated his activities; the best thirty-three years of his professional life were spent in public health work."

"Sir, was this man successful?" "My boy, this man was successful by any standard by which you might measure him. First of all as a man, as a husband, as a father, as a church man, as a civic leader, as a friend, as a physician, as a public health official. But, my boy, I will give you the finest standard of all by which you can measure any man. It took a woman, with her fine sensibilities, and sensitiveness, Bessie A. Stanley, to estab-

lish such a criterion." She says, "He has achieved success who has lived well, laughed often, and loved much; who has gained the respect of intelligent men, the trust of pure women and the love of little children; who has left the world a better place than he found it, whether by an improved poppy, a perfect poem or a rescued soul; who has never lacked appreciation of earth's beauty, or failed to express it; who has looked for the best in others and given them the best he had; whose life was an inspiration; whose memory a benediction."

"My son, most of that could be said of Phillip E. Blackerby. I hope you will so live and conduct yourself that much of it may be said of you."

And so, with these few brief remarks, we close the chapter of my friend's and your friend's useful life.

BACKING INTO SOCIALIZED MEDICINE

By HOWARD BUFFETT

Former Representative to the United States Congress
from the Second Nebraska District.

Socialized medicine ought to be a dead issue in America. In a number of elections its advocates have taken repeated shellackings, to the point where candidates for office hardly dare mention it. This situation is testimony to the political effectiveness of the doctors who fought socialized medicine, as well as to the fact that Americans will reject any socialistic proposal that is properly labelled; that is why the word "socialism" is assiduously avoided by its avowed proponents, like the New Dealers or the Americans for Democratic Action.

Nevertheless, we are edging towards socialized medicine, whether we want it or not. We are being dragged into it as a result of our attempt, since Pearl Harbor, to meddle in the affairs of the world. We are backing into it by way of militarism.

Out of World War II emerged over fifteen million American veterans, each with a lifetime claim on the government for free medical care—subject to some conditions. Then there are about 3,700,000 men and women now in uniform who have

a "plus" claim on society for medical attention; the "plus" is the inclusion of their dependents and families in the subsidy. To be exact, the "plus" is not entirely free, for the dependents are required to pay certain modest charges for such medical services as they receive.

Altogether, there are almost 20,000,000 Americans, mostly on the underside of fifty, who enjoy this special attention.

The government has sought to lessen this continuing strain on its budget by attaching some technical restrictions to the use of the privilege. The regulations call for dividing all medical cases into two broad classifications, service-connected and Non-service-connected disabilities are can be positively traced to service duties entitles the veteran to free and unlimited medical attention for the rest of his life. Non - service - connected disabilities are treated free in Veterans' Hospitals only if the patient signs an application in which he declares his inability to pay. His signature is final; it is not checked or questioned in any way. The idea is to protect the ailing veteran from embarrassment.

Naturally, most post-service health troubles are post-service developments; we all

Permission to print was obtained through the AMA Washington office, Frank Wilson, M.D., director, from "Human Events," Inc.

acquire more miseries as we get older. Also, like most of us, veterans have their financial troubles. It is not strange, therefore, that a recent survey came up with the statistics that 64 per cent of veteran hospital beds were occupied by patients suffering from non-service ailments. That left only a third of the available beds for service-connected cases, which explains why so many deserving veterans were kept on the waiting list. Quite a headache for the Veterans Administration.

The financial and medical difficulties arising from the claims of veterans already on the rolls are as nothing to what looms ahead. Under the Selective Service law, about 900,000 young males are conscripted each year, and conscription automatically entitles them to medical care for the rest of their lives—according to regulations. Should Selective Service, often referred to as sugar-coated Universal Military Training, be converted into full-fledged UMT, in a comparatively few years at least half the nation's population—not counting dependents—would have a claim on Uncle Sam, M.D. Since UMT would be a continuing process the claim on said doctor's services would grow and grow.

Nor does the problem stop there. As the government siphons off the medical personnel needed for sick veterans or soldiers in service, the talent available for the civilian population diminishes. The VA now employs 7,000 doctors regularly and an equal number on call. This creates an artificial shortage of doctors for the rest of the population, a shortage that is not relieved by the medical schools simply because more and more of their graduates are drawn into the services, either voluntarily or via the draft.

This false scarcity of doctors creates the very conditions which the advocates of socialized medicine decry. Following the law of supply and demand, the fees of the fewer available doctors rise. And as a matter of necessity, their offices are overcrowded and their examinations are often forced to be hasty and perfunctory. Thus the inflammatory charges of the socialists acquire substance—if one overlooks the cause of the condition, which is the absorption of a large part of our medical profession by the military.

Yet, the facts indicate that the hullabaloo about the shortage of doctors in America is just hullabaloo. In 1940, before the war, there was no shortage. In fact, there was a shortage of patients, for

many young and well-trained doctors were finding it difficult to establish practices. What then happened to create the present apparent shortage?

In 1940 there were 175,382 medical doctors in the United States. By 1952 the number had increased to 211,680, a gain of 36,298. To be sure, the population of the country had increased by 15 per cent—but the doctor population had increased by 21 per cent.

Where are all these doctors? As stated above, a good portion of them are in the employ of the Veterans Administration. But, many more are in military uniforms, stationed wherever American troops are stationed. The Army has one doctor for every 275 men and women in the service. The Navy personnel seem to be more fragile; they need a doctor for every 195 men in uniform. The Air Force, somewhat less demanding, gets along with a doctor for every 315. While those in combat areas could understandably be in need of such liberal medical service, most of the military forces are, thank God, not so occupied, and on the whole they constitute the healthiest segment of our entire population.

As for the rest of us, we must get along with one doctor to 710 possible patients. Whether that is adequate we do not know. But, we do know that many of our small communities cannot secure permanent doctors; and we do know that the available civilian doctors are carrying a heavy load. None of us, not even the overworked doctors, would complain about this condition, if it were created by the need of medical attention on the battlefield, or even in the service hospitals. There is a suspicion, however, that the large ratio of doctors to men in uniform is in line with the program of those who would collectivize America.

A government that conscripts its youth is under obligation to provide them with adequate medical care, regardless of any shortage of doctors for the civilian population; no one can quarrel with that. And it is easy to see that the claim of veterans to medical help under varying circumstances also has justification. But, when we think of the likely impact of this situation on the future of private medical practice, the problem takes on an aspect quite unrelated to the duty of the country to its soldiers.

Not only will the soldier come out from the service with a firm conviction that he

is entitled to all he can get from the government, but the doctors who have had a taste of regimented medicine, with its freedom from responsibility to the patient, will most likely favor a continuance of the sinecure in civilian life. Not having had any experience with private practice, he will not understand its superiority and will not therefore be inclined to fight against socialized medicine. The struggle against socialization has been waged by American doctors who had built up practices in the hard, competitive way. Their minds had not been socialized. But, the breed of doctors in the offing will have had a different training.

The doctor who enters the army directly from medical school, or after his internship, knows nothing but bureaucratic medicine, and has no experience by which to measure its disadvantages. Just as the young graduate who goes to Washington immediately after he receives his diploma soon makes a perfect mental adjustment to statism, so the doctor in uniform learns how to get along by pleasing his superiors (not his patients), and how much easier it is to make reports than diagnoses. Besides, the regularity of the pay, though inadequate, is an immediate inducement that offsets the promise of the future in private practice. Why hang up a shingle and wait for patients? The government has lots of them. And why fret about fees and collections? The monthly check from the government is always good.

So then, socialized medicine can slide into the American way of life without any new legislation. This would be all right to those who are hell-bent for socialism. To those of us who have always known that militarism and socialism are related, the situation is dark; unless we can get rid of militarism we cannot prevent the coming of socialism.

Perhaps the solution of this problem lies with the doctors who know of the

dangers to medicine, both as a science and an art, in socialization. They have thus far put up a good fight, and maybe they can figure out a maneuver to prevent the destruction of the profession by the flank movement from militarism. Perhaps the young doctors can be taught that regimented medicine is bad for them and the country.

To those who refuse to see the danger in the present trend, and who view the situation as a temporary post-war phenomenon, I offer a bit of history. The Civil War ended in 1865. But the largest number of pension recipients was not reached until 1915, 50 years later, when 691,606 Civil War pensions were being paid. The peak of expenditure for Civil War pensions was reached in 1921. From this experience it is fair to conclude that the medical demands arising from our two World Wars will grow with the years, and will continue to provide the advocates of socialized medicine with plausible argument.

The veterans are not to blame for this situation. They bear little or no responsibility for it. When they were drawn into the bloody and futile overseas ventures, they were entirely too young and inexperienced to pass judgment on the policies that disrupted their lives, or to understand what the consequences of these ventures would be. One can express disappointment, however, that their leadership has not supported the small band of patriots in and out of Congress who have resisted the drainage of our economy to the point where future payments to widows, orphans and wounded will be of questionable value. The continuing wastage of our wealth since World War II, by way of handouts, while working into the hands of our socialist-minded, must in the end weaken the nation's ability to discharge its solemn duty to the veterans.

The JOURNAL of the Kentucky State Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

EDITOR: BRUCE UNDERWOOD, M. D.

MANAGING EDITOR: J. P. SANFORD

Associate Editor: Jack L. Chumley, M. D.

J. G. Denhardt, Publisher, Bowling Green

ADVISORY COMMITTEE TO THE EDITOR

Guy Aud, M. D., Chairman, Louisville

Richard J. Rust, M. D., Newport

James E. Hix, M. D., Owensboro

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1956

Everett H. Baker, M. D.
John L. Dixon, M. D.
George G. Greene, M. D.
Arnold R. Griswold, M. D.
O. Leon Higdon, M. D.
James M. Keeton, M. D.
Frank Moore, M. D.
Alvin C. Poweleit, M. D.

Term Expires July 1, 1955

Rufus C. Alley, M. D.
James W. Bruce, M. D.
Carl H. Fortune, M. D.
Emmet F. Horine, M. D.
William O. Johnson, M. D.
William R. Miner, M. D.
George W. Pedigo, Jr., M. D.
William L. Woolfolk, M. D.

Term Expires July 1, 1954

Spafford Ackerly, M. D.
Sam H. Black, M. D.
Samuel H. Flowers, M. D.
William P. Hall, M. D.
E. W. Jackson, M. D.
T. O. Meredith, M. D.
James E. Moore, M. D.
Winston V. Rutledge, M. D.

Editorial and Business Offices, 620 S. Third St., Louisville, Kentucky

Officers of the Kentucky State Medical Association

J. Duffy Hancock, 704 Brown Building, Louisville.....	President
Clyde C. Sparks, Ashland.....	President-Elect
Robert O. Joplin, Brown Building, Louisville.....	Vice-President
Wyatt Norvell, New Castle.....	Vice-President
Leon Higdon, Paducah.....	Vice-President
Bruce Underwood, 620 S. Third Street, Louisville.....	Secretary-Editor
Woodford B. Troutman, 1616 Heyburn Building, Louisville.....	Treasurer
Charles A. Vance, 271 W. Short Street, Lexington.....	Speaker
E. W. Jackson, Paducah.....	Vice-Speaker
John E. Haynes, Madisonville.....	Orator in Surgery
Robert S. Dyer, Fincastle Building, Louisville.....	Orator in Medicine

DELEGATES TO THE A. M. A.

	Term Expires
W. Clark Bailey, Harlan.....	1954
Thomas V. Gucex, 2006 Grinstead Drive, Louisville (Alternate).....	1954
Bruce Underwood, 620 S. Third Street, Louisville.....	1955
Coleman Johnston, 211 W. Second Street, Lexington.....	1955

COUNCILORS

	Term Expires
First District J. Vernon Pace, 109-10 Citizens Bank Bldg., Paducah.....	1956
Second District Walter L. O'Nan, 237 Second St., Henderson.....	1955
Third District Delmas M. Clardy, Hopkinsville.....	1956
Fourth District W. Keith Crume, Bardstown.....	1953
Fifth District Richard R. Slucher, Buechel.....	1954
Sixth District L. O. Toomey, Bowling Green.....	1954
Seventh District Branham B. Baughman, Frankfort.....	1955
Eighth District Edward B. Mersch, 92 Arcadia, Covington.....	1954
Ninth District J. M. Stevenson, Brooksville.....	1955
Tenth District J. Farra Van Meter, 183 N. Upper St., Lexington.....	1955
Eleventh District Hugh Mahaffey, Richmond.....	1954
Twelfth District Garnett J. Sweeney, Liberty.....	1956
Thirteenth District Charles B. Johnson, Russell.....	1955
Fourteenth District John Archer, Prestonsburg.....	1956
Fifteenth District Edward Wilson, Pineville.....	1954

EDITORIALS

THE KSMA AND UMWA WELFARE AND RETIREMENT FUND

The United Mine Workers of America Welfare and Retirement Fund has for several years operated a medical care program in our Kentucky coal fields. This program has been notable for its adherence to the best traditions and ethical standards of medical practice. There is no question that it has been a major factor in greatly improved medical care for the coal miner.

The advent of labor union sponsored medical care programs on a nation-wide scale is of vital interest to the medical profession, and other labor unions have watched with great interest the program of the United Mine Workers. What happens in the coal fields becomes of importance to all who are interested in the health of the people.

The medical program has been greatly expanded by a hospital construction project which includes out-patient facilities. It cannot be denied that hospitalization is insufficient now for the need of Eastern Kentucky. There has been considerable anxiety, however, whether this new development will supplement or supplant the existing hospitals and physicians in the areas they serve. Frank statements of proposed policy concerning management, staffing and operation of these hospitals from the highest sources within the Fund, might well serve to allay distrust and anxiety.

The policy of the Kentucky State Medical Association has been to carefully evaluate the program of the United Mine Workers, and cooperate fully insofar as we feel the policies promote good medicine in Kentucky. As physicians we are pledged to do all in our power to provide the best medical care possible to all the people of our state. In line with this, the House of Delegates, in accepting the re-

port of the Advisory Committee to the United Mine Workers Welfare and Retirement Fund reaffirmed its stand of a year ago. This was "that fee for service relationship and free choice of physician among qualified and ethical individuals should be preserved in any form of medical practice established."

Medical care of the industrial worker and the individual in the marginal income group, not only in the hospitals, but also in home and office, looms large in the planning of various groups. The medical profession cannot ignore it. If the control of medical practice in a considerable area should pass into the hands of non-medical groups, the results might well be tragic, both for the general public and for the physicians. A positive program by the medical profession, working toward the solution of the problems of providing better medical care, is the best defense against possible domination of medicine by government or other lay organizations.

The United Mine Workers of America Welfare Fund at present make no provision for home and office care of its beneficiaries. If the physicians of Kentucky can work out a program to fill this need, the leadership of the medical profession in providing care for the sick would be clearly established. Certain suggestions have been made by the Advisory Committee to the UMWA Welfare and Retirement Fund, but no perfect answer is likely to be easily found. The Committee will continue to study the problem, but it earnestly solicits the cooperation, suggestions, and criticisms of the physicians of Kentucky to guide its efforts.

CARL H. FORTUNE, M.D., Chairman
Advisory Committee to UMWA
Welfare and Retirement Fund

THE HEARTBREAK CASE, THE PUBLIC AND YOU

It is, of course, trite to point out that medical modesty concerning the benevolent practices it has long taken for granted as a part of his responsibility is both the direct and indirect cause of many of medicine's public relations ills today. The open-minded person does not have far to look to learn that no other group's contribution in time, talent, and recourse to charity is comparable to that of the medical profession. Despite this, the public too often is the victim of misdirected enthusiasm.

Many K.S.M.A. members had the opportunity to see at close range the exploitation of the so-called "heartbreak case" by the newspapers, radio and television, in a situation that developed in a neighboring city across the Ohio river. Thoughtful physicians all over the nation are deeply concerned over the mild epidemic of this tear-jerking technique which has been developing in various areas.

Over-dramatization of the medically needy case by the newspapers, radio and television was carefully considered by medical leaders at the recent conference on public relations sponsored by the Medical Society of the State of New York. The representatives from New York's 61 counties, according to reports, felt that the exploitation of these unfortunate cases must be stopped.

The "heartbreak case" was described as "an appeal for funds through television, radio or press to pay for extensive medical care or an operation, the cost of which is overwhelming to the person involved."

The conference was told that in the vast majority of cases, investigation of the facts

showed that the patient—around which the heartbreak case was built—had not consulted hospital authorities, medical societies, or other sources who are geared to alleviate these situations. Certainly Kentucky physicians familiar with the case across the river know that the patient had not sought assistance through established channels.

"The patient must be informed that regardless of ability to pay he need only ask to receive the services of a doctor or hospital care," James D. Tyner, Newark, told the conference. "In these cases, the county medical society, state welfare department, and voluntary health organizations are ready to help every deserving person."

Dr. Tyner very properly asked the conference, "How many people know that physicians in hospital wards and clinics throughout America give their services daily without charge?" He pointed out that the average physician spends 12 per cent of his working day doing charity work. The average dollar value of these services, he says, is \$3,000 annually. According to his figures, physician contribution in time to charity patients has increased 15 per cent in the past four years.

It is encouraging to observe, however, progress is being made on many fronts to bring about a correct and full understanding concerning contributions medicine is making, and the circumstances and problems under which they are made. The degree of success the effort will enjoy will depend upon the individual support and cooperation of the physician himself. Much work lies ahead.

The Scientific Department of The Journal
Reflects the Experience of You
and Your Colleagues

President's Page

With the approach of the holiday season one is bound to be more impressed with the significance of Christmas than with the importance of discussing administrative matters. Whether one believes in "Peace on Earth, Good-will toward Men" or "Peace on Earth to Men of Good-will," the theme of Christmas is Peace. This feeling of peace and the happiness it engenders is so prevalent that even those who do not believe in Christ are affected by this tide of kind feeling.

Although the exchange of gifts has become somewhat commercialized, Christmas still gives us an occasion to remember in a material way those who have been thoughtful of us during the past year. Even more important is the opportunity to wish one's friends and acquaintances a Merry Christmas and a Happy New Year. This is the greeting I send to all of you.

May Christmas find each of you at peace with his colleagues, patients, neighbors and friends. May you have a most pleasant holiday season with your family. May the New Year blot out the disappointments of the old one and bring to you and yours health, happiness, prosperity and additional opportunities for continuing service to your fellow-man.



PRESIDENT

ORGANIZATION SECTION

Third R-H Conference Scheduled March 10-11, in Louisville

The third annual Kentucky Rural Health Conference, sponsored by the KSMA Rural Health Committee and the Kentucky Rural Health Council, will be held at the Kentucky Hotel, Louisville, Wednesday and Thursday, March 10, and 11, announced Walter L. O'Nan, M.D., Henderson, chairman of the rural health council.

Wyatt Norvell, M.D., New Castle, chairman of the KSMA Rural Health Committee, has expressed the hope that all members of the association and members of the Woman's Auxiliary fully support the conference in its aims to further the growth of lay interest in the voluntary co-operative rural health movement in Kentucky.

"The doctors of medicine in Kentucky have a real responsibility to their communities to encourage attendance at the conference and to display their own personal interest in what the layman can do for himself through voluntary effort," Dr. Norvell said. "The people are looking to their physicians for leadership and support. Aside from his direct ministrations to them, the physician can in addition help these people by encouraging them in the cooperative solution of their own problems."

Some twenty state-wide organizations are members of the Kentucky Rural Health Council, founded in 1951 by the KSMA, and will be urging the attendance of their local affiliates and individual members at the conference.

The program for the conference is being developed on the theme, "Help Yourself to Health." The committee reports that in addition to prominent national and state authorities, the meeting will include a number of reports from communities which, in keeping with the 1953 conference theme, are "Following Through Back Home."

AMA Industrial Health Group to Meet Feb. 23-25, Louisville

Plans for the National Congress on Industrial Health, sponsored by the American Medical Association, to be held February 23-25, 1954, at the Brown Hotel, Louisville, are virtually complete, according to Gracie Rowntree, M.D., Louisville, program chairman for the sessions.

All KSMA members are invited and urged to

attend this eighth annual session, which is expected to attract more than 600 physicians, representatives of management, labor and other groups from over the nation interested in the health of the industrial worker, Dr. Rowntree stated.

KSMA members with partial or full time interest in industrial practice are especially urged to plan to attend the first day of the conference, which will concern itself with the medical problems of the industrial physician. The program will offer an outstanding nationally known speaker.

Feature of the second day of the conference will be a joint open dinner meeting, Wednesday evening, February 24, 1954, of the Jefferson County Medical Society and members of the conference in the Crystal Ball Room, Brown Hotel. The program will be built around the rehabilitation work in Jefferson County and will be highlighted by a nationally recognized speaker.

Carl Peterson, M.D., Chicago, secretary of the AMA Council on Industrial Health, met with Program Chairman Rowntree and others at the Pendennis Club, Tuesday, November 3, in a planning session for the conference. The program for the meeting will be announced in the January issue of the Journal.

C. P. Lorz to Retire as SMA Secretary-Manager in '54

After a long and colorful career, C. P. Lorz, secretary and general manager of the Southern Medical Association, will retire following the close of the 1954 Annual Meeting, which will be held at the Keil Auditorium in St. Louis in November, according to A. Clayton McCarty, M.D., Louisville, SMA councilor from Kentucky.

This information was received from Dr. McCarty following his return from the 1953 meeting as the December issue was going to press. Details of the Atlanta session will be carried in the January issue of the Journal.

"Mr. Southern Medical," as Mr. Lorz is affectionally known, not only to thousands of Dixie physicians but to the profession and lay members all over the nation, will be succeeded by the present Executive Secretary Virgil Foster, of the Tennessee State Medical Association at Nashville.

M. Y. Dabney, M.D., Birmingham, Alabama, for many years editor of the Journal of the SMA, will also retire following the St. Louis meeting. Rudolph H. Kampmier, M.D., editor of the Journal of the Tennessee State Medical Association, and a member of the faculty of the Vanderbilt University Medical School, will take Dr. Dabney's place. Dr. Kampmier will also continue in his present position.

As a part of the reorganization which was voted by the council at the Atlanta meeting, Mr. Robert F. Butts, who joined the staff of the Southern several years ago, was promoted and given the title of Business Manager. Mr. Butts lives in Birmingham, Alabama, where the SMA Headquarters Office is located.

Mr. Foster, who has distinguished himself in his present work, will leave the TSMA on June 30, 1954. He will become officially connected with the SMA on August 1, 1954. Between then and the St. Louis meeting, he will familiarize himself with his new duties.

"The hundreds of KSMA members, who have known and loved Mr. Loranz and appreciated his splendid contribution to medicine in the South, will certainly miss him in the years ahead. However, all will surely feel he deserves a rest from the heavy responsibility he has been carrying," Dr. McCarty said.

County Reports Indicate Success of Diabetes Detection Week

Reports are still coming in from the county medical society chairmen as to the number of tests given, and newly proven diabetics discovered during the Diabetes Detection Week, November 15-21, sponsored by the KSMA in cooperation with the American Diabetes Association.

During the course of the detection drive physicians, hospitals and laboratories gave free urine sugar tests to anyone requesting them, said Carlisle Morse, M.D., Louisville, chairman of the KSMA Diabetes Committee. Wide television and radio coverage throughout the state consisted of special programs and spot announcements designed to focus attention on the importance of the drive.

The press arrested the public's attention to the drive with news articles and interesting photographs such as the delivery operation of the Kentucky Civil Air Patrol which cooperated by flying diabetes tests from Cincinnati to London, Lexington, Frankfort, Owensboro, Paducah and Louisville.

Fayette, Campbell-Kenton Counties Offer 1st Staff PR Course

Fayette and Campbell-Kenton counties are among the first to have sponsored the successful KSMA public relations course for physicians' secretaries and office personnel, according to W. Vinson Pierce, M.D., Covington, chairman of the Education Campaign Committee which developed the course.

Suitable diplomas were presented to over 100 physicians' assistants who attended the three sessions in Lexington, held at the Phoenix Hotel, October 20, November 3 and November 24. Approximately 50 girls attended each of the sessions sponsored by the Campbell-Kenton County Medical Society, held at the Town and Country Restaurant, Covington, October 26, November 9 and November 23.

County medical societies may make arrangements for having the course presented to the office personnel of their members by contacting the Kentucky State Medical Association Headquarters Office.

Dr. Rankin Heads ACS For 1954; 16 Ky. Surgeons Inducted

Fred W. Rankin, M.D., Lexington, a past president of the American Medical Association, was inaugurated as president of the American College of Surgeons, October 9, at the annual clinical congress in Chicago. In an address delivered at the meeting, Dr. Rankin spoke out against fee-splitting and other malpractices warning that "though their number is small, even one malefactor reflects directly and unfavorably upon us all."

Sixteen Kentucky surgeons were inducted as fellows at the ACS clinical congress to bring the total number of members in Kentucky to approximately 225. The new fellows are:

Harold F. Berg, M.D., Louisville; William H. Cartmell, M.D., Maysville; John G. Coleman, M.D., Lexington; Robert H. English, M.D., Henderson; Laman A. Gray, M.D., Louisville; Richard Finley Grise, M.D., Bowling Green; Donald C. Haugh, M.D., Mayfield; Hubert C. Jones, M.D., Berea; J. Marvin Keeton, M.D., Ashland; W. Vernon Lee, M.D., Covington; Blaine Lewis, Jr., M.D., Louisville; Thomas M. Marshall, M.D., Louisville; Herbert Ransdell, Jr., M.D., Louisville; James M. Riley, Jr., M.D., Louisville; William J. Shutz, M.D., Louisville and John J. Sonne, M.D., Bardstown.

Cancer Society Receives Xmas Gift

A cancernobile will be presented as a Christmas gift to the Kentucky Branch of the American Cancer Society by the 24 chapters of the Woman's Auxiliary to the KSMA which have been raising funds by special projects conducted throughout the state since the Annual Meeting September 22-24, in Louisville, when the decision for the cancernobile project was officially enacted.

Mrs. Malcolm L. Barnes, Louisville, head of the fund drive, said that 50 percent of the quota for the cancer vehicle had been raised and because of the increasing interest in the project, she expected the completion of the drive with a full quota early in December. The vehicle will replace the station wagon the auxiliary gave the cancer society three years ago and will consist of a completely equipped cancer diagnostic clinic that will serve Kentucky's rural areas, Mrs. Barnes explained.

House Lists Nominating Committee For 1954 Session

The five members of the KSMA nominating committee for 1954, elected at the closing session of the House of Delegates, September 23, 1953, are: Marion F. Beard, M.D., Louisville; Howell Davis, M.D., Owensboro; Carl Fortune, M.D., Lexington; John S. Harter, M.D., Louisville and T. O. Meredith, M.D., Harrodsburg.

A change in the by-laws by the House in 1952 provides that the Speaker nominate ten members, from which the House elects five to serve the following year as the nominating committee.

At the first meeting of the 1954 House of Delegates, the nominating committee will submit a written report of one or more names for each officer to be elected. Additional nominations may be submitted from the floor.

AMEF Gives \$25,140 to U of L; 1953 Contributions Urged

The University of Louisville School of Medicine in 1953 received a total of \$25,140 in Class A, Class B and designated grants from the American Medical Education Foundation, from which 322 medical students derived benefit, according to Hiram W. Jones, executive secretary of the Foundation.

During November, subscribers to the AMA Journal received literature explaining the value of reviewing their probable income tax

to see if a contribution to the Foundation might serve a dual purpose, of lessening income tax and at the same time helping the medical schools in their state.

At this writing the Foundation has received \$924,741.63 from 14,366 contributors with a goal of \$2,000,000 to reach by December 31, 1953. To 79 medical schools in the United States during 1953, the Foundation contributed a total of \$1,944,151.64 in grants. Mr. Jones has urged all physicians to "unlimber their best sales talks and tell the Foundation story at every opportunity to help make the 1953 mail campaign a success."

Ohio Valley Section Scientists Meet Oct. 30, Louisville

Seventy three scientists of the Ohio Valley Section, Society for Experimental Biology and Medicine, met October 30-31, 1953, in the auditorium of the Jefferson County Medical Society. Hampden C. Lawson, M.D., Louisville, professor of physiology, University of Louisville School of Medicine, served as chairman of the program committee.

KSMA members interested in obtaining information on any of the papers presented, which are listed below, may contact Dr. Lawson.

"Blood Pressure Reflexes in the Dog: Parameter of Afferent Vagal Stimulation"

"Passage of I-131 through the Placenta and Also into the Milk of the Dog after Injection of Iodinated Human Serum Albumin"

"The Effect of Administering Neurohypophyseal Extraction Products upon Reduced Renal Functions Associated with Neurohypophysectomy; Pitocin Elevation of Renal Functions to Preneurohypophysectomy Levels"

"The Anti-Electroshock Potency and Toxicity of Some Anticonvulsant Drug Combinations"

"Arrest and Recovery of the Embryonic Rat Heart after Acidosis"

"Studies on the Production of Streptococcal Thermal Antibody and Its Use in Diagnosis and Treatment"

"Site of Action of an Organic Mercurial Diuretic"

"Experimental Atheroma Produced by the Intravenous Administration of Lipoproteins and Mucopolysaccharides in the Dog"

"The Mechanism of Physiological Fibrin Formation in Blood"

"An Improved Technique for Determining Antifibrotic Activity"

"The Effects of Dietary Vanadium on Lipid Metabolism in the Rabbit"

"Modified Trypsin in the Treatment of Experimental Lesions of the Spinal Cord"

AAGP Plans 6th Annual Assembly

Headlining the scientific program of the 6th annual Assembly of the American Academy of General Practice, to be held March 22-25, 1954, in the Public Auditorium, Cleveland, Ohio, will be such distinguished leaders in the field of medicine as Sir Alexander Fleming, Howard Rusk, M.D., New York, New York, and Edward J. McCormick, M.D., Toledo, Ohio.

To supplement the lecture program, which promises to be well diversified and applicable to daily practice, the Scientific Exhibit Committee is planning a section to display more than 60 exhibits, at least half of which will be original, making their debut at this meeting.

U of L Opens Radioisotope Center

The Radioisotope Center at the University of Louisville School of Medicine will soon move into the new laboratory which is almost completed at the Louisville General Hospital. This laboratory, which will offer its services to the medical profession of Kentuckiana, will have complete equipment and facilities for all types of diagnostic and therapeutic applications of radioisotopes in addition to its research function. For information call Amherst 1621, Extension 329, or write Herbert D. Kerman, M.D., director, Radioisotope Laboratory, Louisville General Hospital, Louisville 2, Kentucky.

Kentucky Follows Upward Trend in Health Insurance Survey

Following the recent country-wide upward trend toward increased protection against unexpected costs of medical care through voluntary health insurance, a record number of Kentuckians were listed as policy holders for 1952 in the Health Insurance Council's annual survey.

Voluntary health insurance coverage in Kentucky at the end of 1952 was as follows: hospital expense, 1,080,000; surgical expense, 767,000 and medical expense 484,000. Organizations covered in the Council report included insurance companies, Blue Shield, Blue Cross and various other independent plans sponsored by business and industry, employee benefit associations and private group clinics.

The newest form of voluntary health protection, major-medical expense coverage, which is designed to help counteract the catastrophic cost of very serious illness, met with increasing public acceptance in 1952, the Council stated. This type of insurance fills in where customary forms of health protection leave off, and provides maximum benefits ranging from \$2,500 to \$10,000 which may apply to any one illness, to one family member or to the total payable in one year. Nearly 700,000 persons in the United States had this form of protection in 1952, the Council stated in its report.

Federal Budget Aids 60 Programs With \$1,775,882,197

The first session of the 83rd Congress appropriated an amount in excess of \$1,775,382,197 for more than 60 varied health, medical and related programs in approximately 19 different departments, independent agencies or commissions, says the AMA Washington Office.

Each major division with total amount of funds appropriated by the federal government is outlined below along with the number of departments into which the budget is distributed. More complete information on medical and health budgets of federal agencies is available on request at the KSMA Headquarters Office.

Department of Health, Education and Welfare, \$340,553,000, distributed among 25 subdivisions

Veterans Administration, \$747,415,264, distributed among 10 subdivisions

Department of Defense, \$533,311,000 distributed among 4 program subdivisions

Department of State, \$14,127,733, distributed among 3 subdivisions

Department of Labor, \$8,960,000, distributed 2 subdivisions

Foreign Operations Administration, \$24,500,000, appropriated to 1 division

Department of Interior, \$27,258,600, distributed among 3 divisions

Department of Commerce, \$621,000,000, distributed among 2 subdivisions

Department of Treasury, \$2,790,000, appropriated to 1 division

Department of Justice, \$1,326,000, appropriated to 1 division

Independent Offices, \$68,019,600, distributed among 7 subdivisions

Miscellaneous, \$7,000,000, distributed among 3 divisions.

Physician Draft Law is Clarified By Additional Regulations

KSMA members will be interested to learn that new regulations modifying and consolidating earlier directives of the "Physician Draft Law" recently were issued by the Department of Defense, according to A. Clayton McCarty, M.D., Louisville, chairman of the Kentucky Advisory Committee to Selective Service.

These new regulations more clearly define professional standards of special registrants who are considered professionally acceptable if they are: (1) graduates of an approved medical school or of a foreign medical school whose graduates are recommended for consideration by the AMA's Council on Medical Education and Hospitals; (2) graduates of any other medical school who have M.D. degrees after completing a four-year medical course providing they have had 12 months of approved intern or residency training or are diplomates of an American specialty board, and are licensed to practice medicine in any state or territory of the United States, or are diplomates of the National Board of Examiners.

Assigning of rank will be based upon the number of years spent in appropriate professional activities subsequent to medical school graduation and prior to date of appointment. The scale for physicians and dentists is set up as follows: less than 4 years—first lieutenant in Army and Air Force, lieutenant in the Navy; 4 to 11 years—captain in the Army and Air Force, lieutenant in the Navy; 11 to 18 years—major in the Army and Air Force, lieutenant commander in the Navy; 18 or more years—lieutenant colonel in the Army and Air Force, commander in the Navy. Copies of the entire directive are available on request from the AMA's Council on National Emergency Medical Service.

Jefferson County Medical Society to Admit Negro M.D.'s

Through revision of its by-laws, the Jefferson County Medical Society voted October 19, 1953, at a meeting in Louisville, to admit Negro physicians considered acceptable, according to the society's professional requirements, by the society's six member judicial council, and approved by a majority vote of the members, said Arthur T. Hurst, M.D., Louisville, society president.

All applicants to the Jefferson County Medical Society must go through a screening process to determine their eligibility for membership.

The council considers the applicants' professional, mental, moral and ethical qualifications, Dr. Hurst said.

The society's executive committee previously had voted unanimously to recommend the admission of Negro physicians. In January, 1948, after careful consideration of the matter, the executive committee made the initial recommendation and the society voted for the same change in its by-laws. In March, however, the action was temporarily suspended because of a technicality which violated the society's constitution. The proposal was officially defeated in June 1948, and not reconsidered by the society until this year.

Rural Health Conference to Meet

"Let's Put More 'U' in CommUnity" will be the theme of the ninth National Conference on Rural Health, sponsored by the AMA Council on Rural Health, to be held at the Baker Hotel in Dallas, Texas, March 4-6, 1954, said Wyatt Norvell, M.D., New Castle, chairman of the KSMA Committee on Rural Health.

Problems of nutrition and costs of medical care and methods of prepayment will be the principal subjects to be discussed. An informal pre-conference session for physicians only will be on March 4, at which "physician participation at the grass roots and problems pertaining to health insurance matters are among the major subjects to be considered," said Council Chairman F. S. Crockett, M.D., Lafayette, Indiana.

Ky. Physicians Mutual Installs New Officers, Directors

The election and installation of officers, directors and committees of Physicians Mutual, Kentucky's Blue Shield Plan, occurred at the Annual Meeting of the Board of Directors, November 5, in Louisville, said T. O. Meredith, M.D., Harrodsburg, president and presiding officer.

In addition to Dr. Meredith, who was inaugurated as president, seven other officers were selected. They include: W. Vinson Pierce, M.D., Covington, first vice president; R. A. Dean, Sr., Louisville, second vice president; Raymond F. Dixon, Louisville, secretary; B. B. Baughman, M.D., Frankfort, treasurer; Raymond F. Dixon, Louisville, assistant treasurer; D. Lane Tynes, Louisville, executive director; Stanley Simmons, M.D., Louisville, medical consultant.

The fact that Blue Shield has broadened its schedule of policy holders to 5 times that of its

original number indicates that its strength in Kentucky is indeed growing. There was a discussion at the meeting of increasing certain indemnities and the possibility of assuming some new types of coverage. These matters were referred to the Medical Advisory Committee for study and investigation.

Dr. Trawick, Louisville, Heads SPA

John D. Trawick, Jr., M.D., Louisville, took office as president of the Southern Psychiatric Association at the annual meeting in Biloxi, Mississippi, October 2-4, 1953. There are approximately 230 members of the association, which will meet in Louisville during the first week in October next fall.

Other officers include: Joseph Barrett, M.D., Richmond, Virginia, president-elect; Titus Harris, M.D., Galveston, Texas, vice-president; Frank Donaldson, M.D., Jackson, Mississippi, second vice-president; Joseph L. Knapp, M.D., Dallas, Texas, secretary-treasurer.

Research Grants to U of L Are Highest in School History

Special grants for research and teaching projects totaling \$366,815, the highest figure ever recorded for one year's financial aid in the school's history, are being received by the University of Louisville School of Medicine, said J. Murray Kinsman, M.D., dean.

Largest of the 19 grants received was \$40,350 from the National Foundation for Infantile Paralysis, which will be used for facilities for polio patients at Louisville General Hospital. Other research grants are to be used for special projects in the fields of psychiatry, community health, cancer, kidney functions, study of eye diseases and blood circulation.

In addition to these grants, \$450,000 was voted by the Kentucky General Assembly for the two year period 1952-54. This money is obtained by the University of Louisville School of Medicine through the State Medical Research Commission.

Dr. Van Arsdall is Honored by Harrodsburg Friends

Appreciative citizens of Harrodsburg and many out of town guests paid tribute to Condit B. Van Arsdall, Sr., M.D., Harrodsburg, at a banquet in his honor October 15, for 50 years of devoted service to his community as a physician, and for his able leadership in civic and religious organizations with which he has al-

ways been closely associated in Mercer County.

Wyatt Norvell, M.D., New Castle, vice president from Eastern Kentucky, officially represented the Kentucky State Medical Association in honoring Dr. Van Arsdall, Sr., on this esteemed occasion. T. O. Meredith, M.D., Harrodsburg, presided as toastmaster of the program following the dinner which was sponsored by six Mercer County organizations recognizing Dr. Van Arsdall, Sr., for the useful and unselfish dedication of his life. The veteran physician has served consecutive terms of office as president of the Mercer County Medical Society, of which he has been a member since 1903.

Tennessee Honors KSMA Physician

Edward La Tane Kennedy, M.D., Smithland, was presented with a "Golden T." Certificate at commencement exercises September 28 by the University of Tennessee Medical Department in recognition for 53 years of service to his community since his graduation. Thirty years of Dr. Kennedy's professional life were spent in Green County, Arkansas, and the latter 23 years he has practiced in Kentucky.

State Nurses Elect New Officers

The Kentucky State Association of Registered Nurses elected Miss Ruth Coppedge, Hopkinsville, first vice president during their three day Annual Meeting in Louisville, at the Seelbach Hotel, in October, said Miss Lula B. McClain, Louisville, president of the association, who was elected in 1952 for a two year term. Other officers chosen by the KSARN are Miss Martha Jane Jordan, Louisville, secretary, and Mrs. Glenda Ball, Middlesboro, director.

Handicapped Children's Conference

The Kentucky Conference on Handicapped Children, sponsored by the Co-ordinating Council for the Study of Handicapped Children and the Nemours Foundation, Wilmington, Delaware, met with members of the Kentucky Legislature in Louisville at the Seelbach Hotel in September to discuss various phases of treatment, education and care of such children in the state.

Outstanding speakers at the meeting included: A. R. Shands, Jr., M.D., president of the American Orthopaedic Association and medical director of the Nemours Foundation, who spoke on, "The Program of the Nemours Foundation,"

Katherine Bain, M.D., assistant to the chief for program development, Children's Bureau, Washington, D. C., who spoke on "The Services Crippled Children Need." Paul B. Magnuson, M.D., president of the Rehabilitation Institute of Chicago was the after dinner speaker.

School Health Problems Discussed

Harry K. Dillard, M.D., Louisville director of the Division of School Health, and John Guy Miller, Louisville, field secretary of the KSMA, attended the fourth National Conference of Physicians and Schools, sponsored by the American Medical Association's Bureau of Health Education, held in Chicago, September 30 to October 2.

Approximately 200 physicians, public health officials and educators participated in the conference where groundwork was laid for further cooperative efforts of these three groups in the solving of school health problems. Edward J. McCormick, M.D., Toledo, Ohio, president of the AMA, pointed out that accidents are a major cause of death among children, totaling about 14,000 per year, which is a figure larger than the next six causes of death combined.

Pertinent Paragraphs

Four issues of significance to the medical profession will come before the next session of the 83rd Congress, the AMA Washington office discloses. The four issues are: social security for physicians, the Jenkins-Keogh plan which would allow physicians to defer income tax payments to be put into restricted annuity plans; aid to schools, and hospitals; Veterans Medical Care.

Medical films for television are now available from the AMA for use by state and county medical societies which can offer the films to local TV channels as packaged programs for airing on public service time. Four presentations are being inaugurated in the new TV film project: "Operation Herbert," a fast moving television play with a humorous touch; "A Citizen Participates," a documentary-type story of a citizen's campaign in a small town; "What To Do," which deals with home medical problems; and "Your Doctor," which spotlights the training and career of a general practitioner. For complete details and information on how to obtain these films, contact your KSMA Headquarters Office.

The eighth annual University of Florida Midwinter Seminar in Ophthalmology and Otolaryngology will be held at the Sans Souci Hotel in Miami Beach the week of January 13, 1954. The lectures on Ophthalmology will be presented on January 18, 19 and 20, and those on Otolaryngology on January 21, 22 and 23. The Seminar draws registrants and their wives from all sections of the United States and Canada. Additional information may be obtained at your KSMA Headquarters office.

The Kentucky Heart Association is sponsoring a plan to provide free heart surgery to any medically indigent adult Kentuckian, 16 years of age or older, said Ralph M. Denham, M.D., chairman of the Kentucky Heart Association's heart surgery committee. Application may be made by any physician on behalf of a patient he believes may need free surgery. Communications should be addressed to the Heart Surgery Committee, Kentucky Heart Association, Columbia Building, 401 W. Main, Louisville 2, Kentucky.

The American Heart Association recently disclosed some interesting facts about the human heart. This vital organ produces enough energy in its lifetime to lift the battleship Missouri 14 feet out of water, pumps every drop of blood to body tissues and back again once every minute, has a reservoir of power specifically intended for strenuous exertion and is as strong as an automobile engine that could run constantly for 70 years without overhauling.

Membership in the Association of American Medical Colleges is now open to medical school faculty members and others professionally linked to medical schools for a fee of \$10 per year as a result of changes in the AAMC constitution made at the 64th annual meeting in Atlantic City, October 26-28. The institutional membership had been limited to accredited medical schools. More complete information can be obtained by contacting your KSMA Headquarters Office.

An extensive survey of the entire problem of postgraduate education is being undertaken by the American Medical Association's Council on Medical Education and Hospitals, according to the AMA. The Council is distributing questionnaires to about 18,000 physicians who are asked to evaluate the various methods employed to keep them up to date in medicine.

The American Goiter Association is again offering the Van Meter Prize Award of \$300 and two honorable mentions for the best essays, submitted not later than January 15, 1954, concerning original work on problems related to the thyroid gland. The competing essays may cover either clinical or research investigations and should not exceed 3000 words in length. Two copies of the essay should be sent to the Corresponding Secretary, John C. McClintock, M.D., 149½ Washington Avenue, Albany 10, New York. Complete details on the Van Meter Prize Award are available in the KSMA Headquarters Office.

Nearing its 1953 goal of one million dollars, the American Medical Education Foundation reports that donations through the month of November have amounted to more than \$950,000 from 15,151 contributors. In 1952, receipts totaled \$906,553 from 7,259 donors. Louis H. Bauer, M.D., Foundation vice-president, pointed out that almost every state has stepped up activity to raise funds in conjunction with the national direct mail campaign. Since such a great amount of interest has been shown, Dr. Bauer indicated that there is a good chance the Foundation will reach its goal by the end of the current year.

Available at your KSMA Headquarters Office is a leaflet based on questions most frequently asked by physicians about Trudeau Sanatorium, a private, non-profit institution operated for the diagnosis and treatment of diseases of the chest, particularly pulmonary tuberculosis. Trudeau, which celebrates its 70th anniversary next year, is located in the Adirondack Mountains in northern New York State.

Transportation, hotel reservations and planning for side tours of Europe will be secured for any AMA member who wishes to attend the World Medical Association meeting in Rome, September 26 to October 2, 1954. Communications should be addressed to the World Medical Association, 245 East 46th Street, New York 17, New York.

A total of 8,712 calls were handled in October by the Physicians Exchange, a service for Louisville physicians, operated by the Jefferson County Medical Society, according to Arthur T. Hurst, M.D., president of the society. Of this number 114 calls were of an emergency nature. Since the exchange has been in operation, the maximum length of time to locate a physician has taken 20 minutes.

News Items

Charles P. Salyer, M.D., Burnside, is planning to move to Houston, Texas, where he expects to join a clinic. Dr. Salyer was graduated from the University of Louisville School of Medicine in 1945 and interned at St. Elizabeth Hospital, Covington.

V. A. Jackson, M.D., formerly of Clinton, has recently located at Paris, Tennessee, where he has opened an office for the practice of surgery. Dr. Jackson was graduated from the University of Louisville School of Medicine in 1941.

R.G. Burman, M.D., formerly of Jeffersonville, Indiana, recently transferred his membership to the Jefferson County Medical Society from Orleans Parish Medical Society, New Orleans, Louisiana. Dr. Burman, a 1937 graduate of the University of Louisville School of Medicine, opened an office for the practice of gynecology during July in Louisville.

Charles N. Nelson, executive secretary of the Ohio State Medical Association, observed his 25th anniversary with the association on November 1, 1953. Mr. Nelson has visited the Kentucky State Medical Association twice recently, on one of these occasions as a speaker. "One might say that Charles Nelson has pioneered in a job which has surely brought him success, honor and respect within the medical profession," said George F. Lull, M.D., secretary and general manager of the AMA, in a recent issue of his Secretary's Letter.

Walter L. O'Nan, M.D., Henderson, recently announced the association of Sam D. Taylor, M.D., of Beattyville, and Robert L. Sumner, M.D., of Alva, with him in general practice at the O'Nan Medical Building in Henderson. Dr. Taylor and Dr. Sumner were both graduated from the University of Louisville School of Medicine in 1951 and interned at St. Anthony's Hospital, Louisville.

County Society Reports

LETCHER

The Letcher County Medical and Dental Society met October 27, 1953, at the office of Health Officer R. Dow Collins, M.D., Whitesburg. The meeting was called to order by B. C. Bach, M.D., Whitesburg. There were six members present: B. C. Bach, M.D., D. V. Bentley, M.D., T. R. Collier, M.D., R. Dow Collins, M.D., Carl Pigman, M.D., and Owen Pigman, M.D.

Dr. Carl Pigman spoke on the use and misuse of some antibiotics and the hazards encountered in antibiotic therapy. Discussions were held on the following topics: The KSMA Annual Meeting, welfare hospitals, excessive demand by the public for penicillin treatment and events relating to the society.

Owen Pigman, M.D., Secretary

McCRACKEN

The monthly meeting of the McCracken County Medical Society was called to order at 6:30 p.m. by D. Y. Keith, M.D., acting in the absence of George Widener, M.D., president. The scientific program was conducted by George Sanders, M.D., Louisville, who discussed "Super Radical Surgery of the Breast."

The business meeting opened with a reading of the minutes and a discussion by J. V. Pace, M. D., and others as to the progress of the Blood Bank in the past month. A motion was made by Keith Sloan, M.D., and seconded by Burton Haley, M.D., that a roster of the McCracken County Medical Society be submitted to the Red Cross for donation of services to draw blood at regularly scheduled times. The motion was amended by Walker Turner, M.D., to include only active members of the society. The amendment and motion carried. It was further moved by Eugene Blake, M.D., and seconded by Burton Haley, M.D., that a mimeographed sheet of the Blood Bank schedule be forwarded to each physician involved. The motion carried.

Birdsell Carle, M.D., and Rex Holland, M.D., were admitted to the McCracken County Medical Society by unanimous vote. A letter from J. Farra Van Meter, M.D., Lexington, concerning the formation of a local grievance committee was read before the society. A motion was made by Eugene Sloan, M.D., and seconded by Keith Sloan, M.D. that we interpret his letter as approving the move and that the committee stand as appointed. The motion carried.

After discussion concerning the advisability and legal technicality of accepting the routine pre-school examinations required by the State Board of Education, by local osteopaths, the following motion was made by Dr. Blake and Dr. Johnson: that a letter be written to the KSMA and the State Board of Education seeking information as to whether or not the local school authorities must accept the examinations by such personnel according to law. The motion carried.

A communication was read from The Paducah Sun Democrat concerning the organization of a medical forum. The question was referred to the Public Relations Committee for further investigation with the suggestion that their recommendations be presented to the society at the next meeting.

It was brought to the attention of the society that the opening of the Western Baptist Hospital has produced additional problems from the standpoint of emergency, medical and surgical hospital coverage. A motion was made by Eugene Sloan, M.D., and seconded by Winfield Stryker, M.D., that all members of the McCracken County Medical Society be placed on the roster at Riverside and Baptist Hospitals to take emergency calls and that the house physicians be encouraged to see these patients prior to calling the attending private physician. Also it was moved that a separate roster of the various specialties represented be rotated in order that the physicians on call who first see the patient may have access to a consultant. The motion was defeated.

M. W. Fowler, Jr., M.D. Secretary

PIKE

The regular monthly meeting of the Pike County Medical Association was held on Tuesday, October 20, 1953, at Pikeville. The meeting was called to order by the president, T. I. Doty, M.D., Pikeville. There were 19 members present.

Two new members were admitted to the association, David Booher, M.D., Virgie, and J. P. Darling, M.D., Pikeville. A nominating committee was appointed by the president for the purpose of selecting new association officers. The chairman of this committee was A. G. Osborne, M.D., Pikeville, with F. A. Vernon, M.D., Pikeville, and E. P. Wright, M.D., Pikeville, also serving.

(The Council on Pharmacy and Chemistry of the American Medical Association has adopted the following statement which appears in New and Nonofficial Remedies, 1953. Philadelphia, J. B. Lippincott Company, pp. 171-173, 1953.)

METHANTHELIN BROMIDE.—*Banthine Bromide* (Searle)

β -Diethylmethylaminoethyl 9-xanthenecarboxylate bromide

Actions and Uses.—Methantheline bromide, a parasympatholytic agent, produces the peripheral action of anticholinergic drugs such as atropine and the ganglionic blocking action of drugs such as tetraethylammonium chloride. Tolerated amounts of methantheline bromide exert side effects typical of atropine-like drugs, but cause less tachycardia, and also cause less postural hypotension than does tetraethylammonium chloride. Toxic doses produce a curare-like action at the somatic neuromuscular junction.

Clinical studies indicate that the drug effectively inhibits motility of the gastro-intestinal and genito-urinary tracts and, to a variable degree, diminishes the volume of perspiration and salivary, gastric, and pancreatic secretions. It also decreases mucoprotein secretion. Like atropine, it produces mydriasis and cycloplegia when applied locally to the eye or administered systemically, but until more clinical evidence becomes available, its local use for this purpose is not recommended. The value of the drug for preventing abnormal cardiac reflexes through the vagus during thoracic surgery, or as an agent for routine preoperative medication in place of atropine, requires further investigation before final conclusions can be reached.

Methantheline bromide is indicated for clinical use whenever anticholinergic spasmolytic action is desired, provided it is not contraindicated because of its atropine-like characteristics or because of a patient's intolerance to the unavoidable side effects of such therapy. It is useful as an adjunct in the management of peptic ulcer, chronic hypertrophic gastritis, certain less specific forms of gastritis, pylorospasm, hyperemesis gravidarum, biliary dyskinesia, acute and chronic pancreatitis, hypermotility of the small intestine not associated with organic change, ileostomies, spastic colon (mucous colitis, irritable bowel), diverticulitis, ureteral and urinary bladder spasm, hyperhidrosis or control of normal sweating which aggravates certain dermatoses, and control of salivation.

Methantheline bromide produces some degree of cycloplegia and mydriasis in therapeutic doses and

therefore should not be administered to patients with glaucoma. It sometimes decreases the ability to read fine print. Xerostomia (dryness of the mouth) is a common, sometimes transient, side effect. Urinary retention of varying degrees may occur in elderly male patients with prostatic hypertrophy, and some patients may have difficulty emptying the rectum. Patients with edematous duodenal ulceration may experience nausea and vomiting during initial administration of the drug. These patients should take only liquids during the institution of drug therapy. All patients should be advised of the possible occurrence of side effects. Overdosage sufficient to produce a curare-like action may be counteracted by prompt subcutaneous injection of 2 mg. of neostigmine methylsulfate.

Dosage.—Methantheline bromide is administered orally or parenterally by either the intramuscular or intravenous route. Parenteral administration is not advised for patients able to take the drug orally. The average initial dose for adults, oral or parenteral, is 50 mg. For patients with considerable intolerance, 25 mg. may be employed. In the management of peptic ulcer, a beginning schedule of 50 mg. three times daily before meals, and 100 to 150 mg. on retiring is suggested. However, the usual effective dose is 100 mg. four times daily, although some patients may require more or less than this amount. The dosage may be increased to tolerance, using dryness of the mouth as a guide, and adjusted to meet the individual response of patients. Maintenance dosage in peptic ulcer is usually considered to be about one-half the therapeutic level. In the management of other hypermotile or hypersecretory states, the dosage should be adjusted to the smallest amount which will relieve the symptoms. When spastic conditions are secondary to inflammatory or other organic lesions, therapy directed toward the cause should be employed whenever possible.

G. D. SEARLE & CO.

Powder Banthine Bromide: 2 cc. ampuls, 50 mg.

Tablets Banthine Bromide: 50 mg.

W. F. Clarke, M.D., Pikeville, made a motion that the Pike County Medical Association support in every way possible the Blue Cross-Blue Shield Insurance Plan and allow the Blue Cross directors to use this information in a planned drive for membership in Pike County.

Mr. Edgell and Mr. Edwards, of the Huntington-Ashland Blue Cross hospitalization plan, attended the meeting and answered questions in regard to the rules and regulations of their insurance plan.

George Archer, M.D., Prestonburg, the newly elected 14th district councilor, attended the meeting and asked for the association's cooperation in bringing the problems of eastern Kentucky medicine to him for clearance in the state. It was his feeling that it behooved all of the physicians in eastern Kentucky to make the state medical organization more conscious of the problems which are encountered in this area. Dr. Archer informed the association that he planned to attend the meetings at infrequent intervals to discuss any problems which might develop.

A paper on bronchiectasis was presented by William C. Hambley, M.D., Pikeville. Dr. Hambley discussed the etiology, the diagnosis and treatment, using lantern slides to show the plain chest X-ray and the X-ray after lipoidal injection for bronchograms and postoperative results. A discussion was held following the presentation.

Russell H. Davis, M.D., Secretary-Treasurer

SHELBY-OLDHAM

The regular monthly meeting of the Shelby-Oldham County Medical Society was held at the Old Stone Inn on Thursday, October 22, 1953. The meeting was called to order by Benjamin F. Shields, M.D., Shelbyville, president.

The following members and guests were present: Wyatt Norvell, M.D., Maurice Fliegelman, M.D., M. H. Skaggs, M.D., Don Chatham, M.D., Charles Chatham, D.D.S., B. B. Sleadd, M.D., A. C. Weakley, M.D., B. F. Shields, M.D., S. B. May, M.D., C. C. Risk, D.D.S., A. L. Heise, D.M.D., M. D. Klein, M.D., A. D. Doak, M.D., George Perrine, M.D., L. A. Wahle, M.D., and L. B. Sternberg, M.D.

Dr. Norvell told the society about a training course being offered for office assistants by the Kentucky State Medical Association. Details about the course will be reported by Dr. Norvell at the next meeting, November 19, 1953.

Dr. Norvell introduced the guest speaker, Maurice Fliegelman, M.D., Louisville, who spoke on "Common Skin Diseases."

C. C. Risk, M.D., Secretary

UNION

The regular meeting of the Union County Medical-Dental Society was held October 20, 1953, 7:00 p.m., at Our Lady of Mercy Hospital in Morganfield. The meeting was called to order by G. B. Carr, M.D., president. The secretary was directed to place an ad in the local newspapers concerning the Diabetic Detection Drive in November. The purpose of the ad was to notify the public of the facilities available for them.

Guest speaker was A. G. Montgomery, M.D., Evansville, Indiana, who spoke on "The Temporomandibular Joint." He discussed the anatomy, the history of the development of medical knowledge of the joint, the ailments most commonly encountered and how to treat them. Individual problems were discussed in the question and answer period which followed.

The following members were present: E. V. Bargo, D.M.D., H.B. Stewart, M.D., J. W. Conway, M.D., George Welker, M.D., William Humphrey, M.D., G. B. Carr, M.D., George Higgingson, D.M.D., W. H. Puryear, D.D.S., W. W. Martin, M.D. and C. P. Bartley, M.D.

Charles P. Bartley, M.D., Secretary

RADIOACTIVE IODINE I-131

(Continued from page 543)

standing benefits. Time has not been sufficiently long for an accurate statistical evaluation, but the possibilities appear good in selected cases.

*These percentages are based on a total of 526 cases studied or treated at the Radioisotopes Laboratory, Good Samaritan Hospital, Lexington, Kentucky.

REFERENCES

1. Aehersold, Paul C., Ph.D. Atomic Energy Benefits—Radioisotopes. Address before the teacher's in-service course on atomic energy, Thursday, April 7, 1949, New York, New York: 13.
2. Kurland, G. S., M.D. and Freedberg, A. S., M.D. The distribution of I-131 in tissue obtained at necropsy or at surgical operation in man. *J. Clin. Endocrinol.*, 8: 843, 1951.
3. Best, C. H. and Taylor, N. B. *The Physiological Basis of Medical Practice*, Second Edition, 1939: 1088.
4. Friedlander, Gerhart and Kennedy, J. W. *Introduction to Radio-chemistry*, John Wiley and Sons, Inc.: 349, 1949.
5. McCullagh, Perry E., M.D., F.A.C.P. Radioactive iodine in the treatment of hyperthyroidism. *Am. Int. Med.* 37:739-744, 1952.
6. Freedberg, A. Stone, M.D., Ureles, Alvin L., M.D., Lesses, Mark F., M.D., Gargill, Samuel L., M.D. Treatment of thyroid carcinoma with radioactive iodine (I-131). *Am. J. Med.* Vol. XI, No. 1, p 44-54, 1951.
7. Blumgart, Herrman L., M.D., Freedberg, A. Stone, M.D., Kurland, George S., M.D. Hypothyroidism produced by radioactive iodine (I-131) in the treatment of euthyroid patients with angina pectoris and congestive heart failure. *Circulation* Vol. 1, No. 5, p. 1105, 1950.
8. Freidberg, Charles K., M.D. *Diseases of the Heart*, W. B. Saunders Company: p. 927, 1950.



**It had to be good
to get where it is**



THE COCA-COLA COMPANY



North Shore Health Resort

Winnetka, Illinois

*on the Shores of
Lake Michigan*

A completely equipped sanitarium for the care of
nervous and mental disorders, alcoholism and drug addiction
offering all forms of treatment, including electric shock.

SAMUEL LIEBMAN, M. S., M. D.

225 Sheridan Road

Medical Director

Phone Winnetka 6-0211

FULLY APPROVED BY THE AMERICAN COLLEGE OF SURGEONS

In Memoriam

WILLIAM H. GIBSON, M.D.

Booneville

1882 - 1953

Dr. William H. Gibson, 71, died September 7, 1953 of coronary thrombosis at his home in Booneville. Dr. Gibson had practiced in Owsley County since 1929. He was a graduate of Hospital College of Medicine, Louisville, class of 1906.

GAVIN FULTON, M.D.

Louisville

1873 - 1953

Dr. Gavin Fulton, 80, of Louisville, died September 9, 1953, at Norton Memorial Infirmary where he was receiving treatment for a hip injury.

Dr. Fulton was influential in founding Children's Hospital Louisville, and was among the first physicians on the staff there as well as

Kosiar Crippled Children's Hospital. He had practiced in Jefferson County more than 50 years, and was one of the original supporters of the Babies Milk Fund.

He was a past president of the Norton Infirmary staff and the Medico-Chirurgical Society of Louisville. A native of Jefferson County, Dr. Fulton was graduated from the University of Louisville School of Medicine in

WILLIAM MADISON RUSH, M.D.

Fern Creek

1871 - 1953

Dr. William Madison Rush, 82, died November 4, 1953, after an illness of several years, at his home in Fern Creek. Although Dr. Rush had been in ill health for the past 10 years, he remained in active practice until about a year ago.

A graduate of the Hospital College of Medicine, Louisville, Dr. Rush began his practice in 1907 in Louisville, visiting his patients on foot and later by horse and buggy. He soon moved his office to Fern Creek, where he became a prominent civic leader, helping to establish the Fern Creek High School and heading the Fern Creek Commercial Club.

BUYERS' GUIDE

Patronize Your Advertisers For They Support The Journal

PAGE No.	PAGE No.
ABBOTT LABORATORIES.....VIII - IX & XXIX	MUTH OPTICAL COMPANY.....XXIV
AMERICAN DIABETES ASSOCIATION.....XXIII	NEW CASTLE SANITARIUM.....XXIV
AMES COMPANY, INC.....XXVI	NEW YORK POLYCLINIC MEDICAL
AYERST, McKENNA & HARRISON, LTD.....XI	SCHOOL & HOSPITALXXII
BILHUBER-KNOLL CORPORATION.....XXX	NORTH SHORE HEALTH RESORT.....XX
CHICAGO MEDICAL SOCIETY.....VI	PARKE, DAVIS & COMPANY.....II & III
CINCINNATI SANITARIUMXXVI	CHAS. PFIZER & COMPANY.....XXI
CITY VIEW SANITARIUM.....XXV	PHYSICIANS CASUALTY ASSOCIATION...XXVI
CLEARVIEW SANITARIUMXXIV	PLEASANT GROVE HOSPITAL.....XXVII
THE COCA-COLA COMPANY.....XX	QUINCY X-RAY & RADIUM
EATON LABORATORIESXIV - XV	LABORATORIESXXII
FAIRMOUNT HOSPITALXXVII	G. D. SEARLE & COMPANY.....XIX
THE KEELEY INSTITUTEXXV	SOUTHERN OPTICAL COMPANY.....XXX
KENTUCKY STATE DEPARTMENT OF	E. R. SQUIBB & SONS.....XVII
HEALTH (Want Ad).....XXIV	O. D. STEPHENSON (Sale Ad).....XXII
LEDERLE LABORATORIESInsert	P. W. STRAUB (Want Ad).....XXII
ELI LILLY & COMPANY.....XVIII	UNITED FRUIT COMPANYV & VI
L. & N. R. R. Co.....XXVIII	UPJOHN COMPANYXXI
MEAD JOHNSON & COMPANY.....XXXII	WAYSIDE HOSPITALXXII
MEDICAL DENTAL MANAGEMENT.....XXIII	WHITE CROSS HOSPITALIV
MEDICAL PROTECTIVE COMPANY.....XXIII	WINTHROP-STEARN, INC.....VII
MERCK & COMPANY.....XIII	WORLD MEDICAL ASSOCIATION.....X
MID-SOUTH POST GRADUATE MEDICAL	LEONARD D. WRIGHT SANITORIUM...XXVII
ASSEMBLYXII	ZEMMER COMPANYXXIV

The

Journal

OF THE KENTUCKY STATE MEDICAL ASSOCIATION

VOL. 51

JANUARY, 1953

NO. 1

Contents

SCIENTIFIC ARTICLES

GERIATRIC SURGERY, G. L. Simpson, M. D.....	1
CONSIDERATIONS OF THE SURGICAL TREATMENT OF CARCINOMA OF THE CERVIX UTERI, Laman A. Gray, M. D.....	5
WHEN A PSYCHIATRIC CASE WALKS INTO YOUR OFFICE, William K. Keller, M. D.....	9
HISTOPLASMOSIS, J. W. Armstrong, M. D.....	12
SEASONAL INCIDENCE OF ACUTE MYOCARDIAL INFARCTION IN THE KENTUCKIANA AREA, Morris M. Weiss, M.D.....	14
THE DOCTOR'S DAY IN COURT, Hon. L. R. Curtis.....	16
COMPLICATIONS OF BILIARY TRACT SURGERY, J. Duffy Hancock, B.S., M.D., F.A.C.S.....	21

SPECIAL ARTICLE

WHICH DIRECTION?, Clark Bailey, M. D.....	25
---	----

EDITORIALS

POST GRADUATE EDUCATION PROBLEM APPROACHES AN ANSWER	30
PHYSICIAN-NURSE RELATIONSHIP IN INDUSTRY	31
COMMITTMENT OF MENTALLY ILL	31

ORGANIZATION SECTION

County Officers to Hear 5 Top Men.....	33	Ky. GP's to Have First 2-Day Meet.....	35
Broadcast Seminar on Cough Feb. 24.....	33	Sat. Eve. Post Features Dr. Miller.....	35
R-H Conference to Map Action Mar. 11.....	34	Dr. C. C. Johnston New Fayette Head.....	35
Louisville Host to SE Surgical Mar. 8.....	34	UMWA Advisors Endorse Care Program.....	36
Dr. Bailey P-R Speaker at Denver.....	34	Advise SS on Dr. Draft, Replacement.....	36

REGULAR DEPARTMENTS

President's Page 32, Pertinent Paragraphs 38, News Items 39, In Memoriam 40,
County Society Reports 41.

COLLEGE OF PHYSICIANS
LIBRARY

FEB 5 1953

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

in the hands of the physician

Often the critical evaluation of the drug to be administered is as important to the patient's recovery as is the diagnosis of his condition. In each case correct procedures can be determined only by the physician.

CHLOROMYCETIN is eminent among drugs at the disposal of the medical profession. Clinical findings attest that, in the hands of the physician, this widely used, broad spectrum antibiotic has proved invaluable against a great variety of infectious disorders.

Chloromycetin®

notably effective, well tolerated, broad spectrum antibiotic

The many hundreds of clinical reports on CHLOROMYCETIN emphasize repeatedly its exceptional tolerance as demonstrated by the infrequent occurrence of even mild signs and symptoms of gastrointestinal distress and other side effects in patients receiving the drug.

Similarly, the broad clinical effectiveness of CHLOROMYCETIN has been established, and serious blood disorders following its use are rare. However, it is a potent therapeutic agent, and should not be used indiscriminately or for minor infections—and, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

CITY VIEW SANITARIUM

For the diagnosis and treatment of mental and nervous disorders, alcoholism and drug addictions

Established in 1907 by the late John W. Stevens, M. D.

52 acres near city. Separate buildings for men and women

Two full time psychiatrists

Electric shock and insulin therapy in selected cases

Occupational therapy

Physiotherapy department

Adequate laboratory facilities

NASHVILLE

:—:

TENNESSEE

WAYSIDE HOSPITAL

168 North Broadway
Lexington, Kentucky

A private psychiatric hospital for men, offering modern diagnostic and treatment procedures, a luxurious club-like atmosphere, and cordial hospitality.

APPROVED BY AMERICAN MEDICAL ASSOCIATION

STAFF

H. HALBERT LEET, M. D.

CARL WIESEL, M. D.

JOHN H. ROMPF, M. D.

IRVING A. GALT, M. D.

EDWARD L. HOUCHIN, ADMINISTRATOR

Phone: 2-2050

THE NEW YORK POLYCLINIC

MEDICAL SCHOOL AND HOSPITAL (Organized 1881)

(The Pioneer Postgraduate Medical Institution in America)

PROCTOLOGY AND GASTROENTEROLOGY

A combined course comprising attendance at clinics and lectures; instruction in examination, diagnosis and treatment; witnessing operations; ward rounds; demonstration of cases; pathology; radiology; anatomy; operative proctology on the cadaver; attendance at departmental and general conferences.

For Information about these and other courses Address:

EYE, EAR, NOSE and THROAT

A three months' combined full time refresher course consisting of attendance at clinics, witnessing operations, lectures, demonstration of cases and cadaver demonstrations; operative eye, ear, nose and throat on the cadaver; clinical and cadaver demonstrations in bronchoscopy, laryngeal surgery and surgery for facial palsy; refraction; radiology; pathology; bacteriology; embryology; physiology; neuro-anatomy; anesthesia; physical medicine; allergy; examination of patients preoperatively and follow-up postoperatively in the wards and clinics. Attendance at departmental and general conferences.

THE DEAN, 345 WEST 50th St., New York 19, N. Y.

For routine infant feeding. The basic Dextri-Maltose product.



Dextri-Maltose

MEAD

MEAD JOHNSON & COMPANY
Evansville 21, Ind., U.S.A.



Especially indicated for premature infants. Contains 50 mg. ascorbic acid per ounce.

To aid in counteracting constipation. Contains 3% potassium bicarbonate.



designed with singleness of purpose

Designed and manufactured specifically for infant formulas, Dextri-Maltose® has an unequaled background of successful clinical use. Safety for your infant patients is assured by the dry form of this carbohydrate, meticulous laboratory control at all stages in its manufacture, and hermetically sealed, key-opening cans. Dextri-Maltose is palatable but not sweet; does not create a "sweet tooth" in infants. Easily measured without spilling or waste and almost instantly soluble, Dextri-Maltose is convenient for the mother.

Season's Greetings

The Journal

OF THE KENTUCKY STATE MEDICAL ASSOCIATION

COLLEGE OF PHYSICIANS
LIBRARY
DEC 22 1953
OF PHILADELPHIA ✓

VOL. 51

DECEMBER, 1953

NO. 12

Contents

SCIENTIFIC ARTICLES

- EVOLUTION OF TRANSURETHRAL PROSTATIC SURGERY,
Douglas E. Scott, M.D., M.S. (Urol.)..... 519
- THE LEGISLATIVE PROGRAM AND ACTIVITIES OF THE AMERICAN
MEDICAL ASSOCIATION, C. Joseph Steiler..... 524
- THE MEDICAL TREATMENT OF HYPERTENSION, George W. Pedigo, Jr., M.D., FACP..... 529
- CHANGING PATTERN IN OBSTETRIC PRACTICE, H. Close Hesselstine, M.D..... 534
- RADIOACTIVE IODINE I-131 AND THE GENERAL
PRACTITIONER, Robert W. Willmott, M. S. and Thomas G. Hobbs, M.D., F.A.C.P..... 541

SPECIAL ARTICLES

- THE DEDICATION OF THE PORTRAIT OF PHILLIP EARL
BLACKERBY, M.D., D.Sc., 1881-1948, Oscar O. Miller, M.D..... 544
- BACKING INTO SOCIALIZED MEDICINE, Howard Buffett 545

EDITORIALS

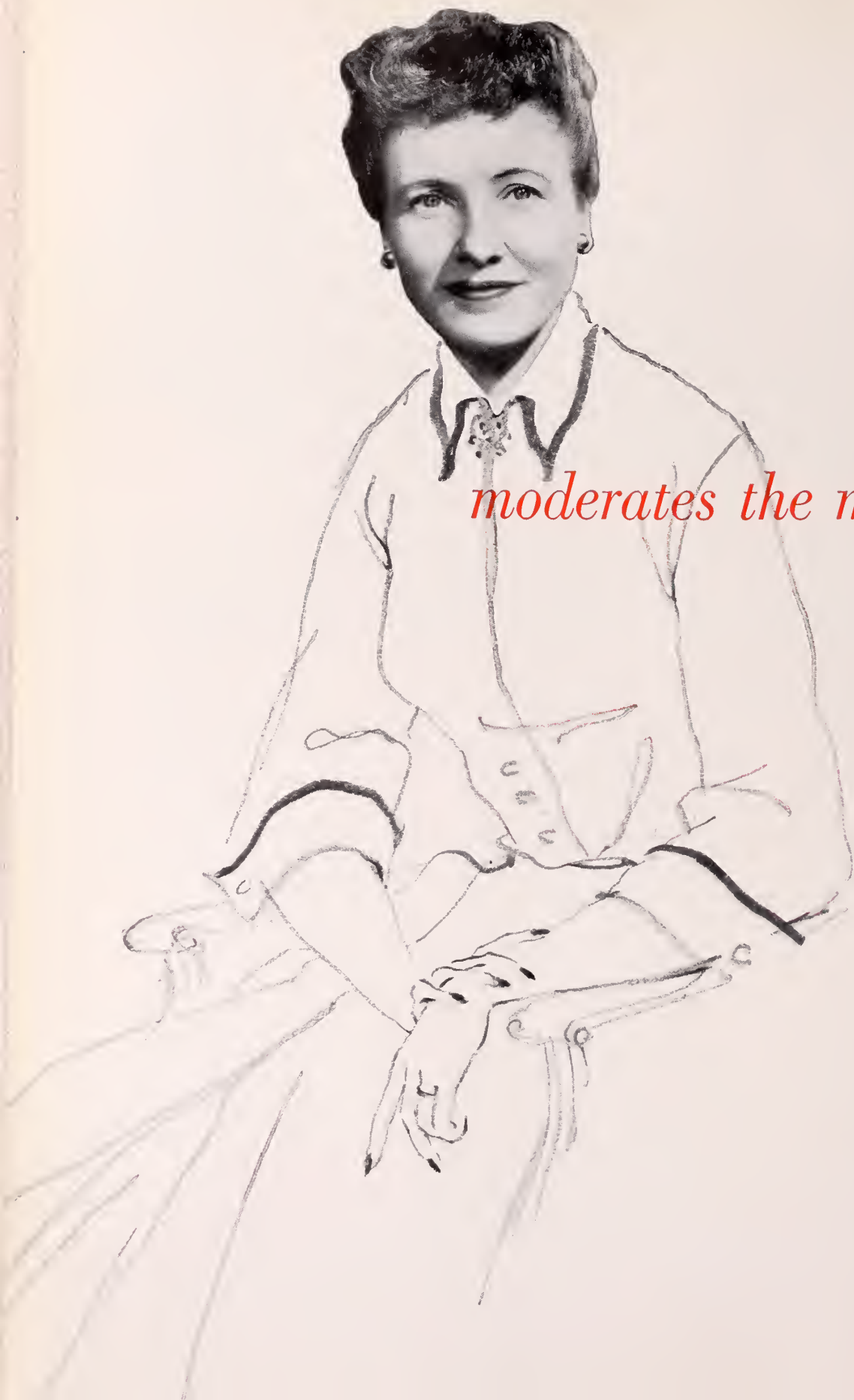
- THE KSMA AND UMWA WELFARE AND RETIREMENT FUND 549
- THE HEARTBREAK CASE, THE PUBLIC AND YOU 550

ORGANIZATION SECTION

- | | |
|---|--|
| Rural Health Conference to Meet March 10.. 552 | Auxiliary Raises Funds for Cancermobile... 554 |
| Ky. Is Host to Industrial Health Group..... 552 | House Selects 1954 Nominating Committee.. 554 |
| C. P. Loranz, SMA Sec'y-Manager, Retires... 552 | AMEF Contributes \$25,140 to U. of L..... 554 |
| Diabetes Detection Drive Is Successful..... 553 | Ohio Valley Scientists Meet in Louisville... 554 |
| First KSMA Staff PR Courses Are Held.... 553 | AAGP to Hold 6th Annual Assembly in Ohio.. 555 |
| ACS Inducts 16 Ky. Surgeons in Chicago.... 553 | Facts Revealed on Health Insurance in Ky... 555 |

REGULAR DEPARTMENTS

President's Page 551, Pertinent Paragraphs 558, News Items 559, County Society Reports 560,
In Memoriam 562.



moderates the menopause

Taste Toppers

for all ages



... that's what physicians and patients alike call these two favorite dosage forms of Terramycin because of their unsurpassed good taste. They're nonalcoholic — a treat for patients of all ages, with their pleasant raspberry taste. And they're often the dosage forms of first choice for infants, children and adults of all ages.

Terramycin[®]

BRAND OF OXYTETRACYCLINE



Pediatric Drops

Each cc. contains 100 mg. of pure crystalline Terramycin. Supplied in 10 cc. bottles with special dropper calibrated at 25 mg. and 50 mg. May be administered directly or mixed with nonacidulated foods and liquids. Economical 1.0 gram size often provides the *total dose* required for treatment of infections of average severity in infants.

Supplied: Bottles of 1.0 Gm.



Oral Suspension (Flavored)

Each 5 cc. teaspoonful contains 250 mg. of pure crystalline Terramycin. Effective against gram-positive and gram-negative bacteria, including the important coli-aerogenes group, rickettsiae, certain large viruses and protozoa.

Supplied: Bottles of 1.5 Gm.



PFIZER LABORATORIES, Brooklyn 6, N. Y., Division, Chas. Pfizer & Co., Inc.



uncomplicated progress...

Tolerance of feedings	<i>good</i>
Incidence of digestive disturbances	<i>low</i>
Growth response	<i>satisfactory</i>
Discontinuation of night feeding	<i>early</i>
Health and development	<i>excellent</i>

The uncomplicated nutritional progress¹ of infants fed Lactum® speaks for its sound rationale. Lactum is Mead's liquid formula made from whole milk and Dextri-Maltose.[®] It provides generous milk protein for sturdy growth and sound tissue structure, with sufficient calories to spare protein and meet the infant's energy needs.

Lactum is convenient and easy to prepare—simply mix equal parts of Lactum and water for a formula supplying 20 calories per fluid ounce.

1. Frost, L. H., and Jackson, R. L.:
J. Pediat. 39: 585-592, 1951.



Lactum

MEAD JOHNSON & COMPANY
Evansville 21, Ind., U. S. A.

MEAD

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

This Book is due on the last date stamped below. No further preliminary notice will be sent. Requests for renewals must be made on or before the date of expiration.

DUE	RETURNED
APR 3 1960 APR 14 1957	

A fine of twenty-five cents will be charged for each week or fraction of a week the book is retained without the Library's authorization.

